



6560-50-P

## ENVIRONMENTAL PROTECTION AGENCY

[FRL-9768-1]

### **California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's Advanced Clean Car Program and a Within the Scope Confirmation for California's Zero Emission Vehicle Amendments for 2017 and Earlier Model Years**

**SUMMARY:** The Environmental Protection Agency (EPA) is granting the California Air Resources Board's (CARB's) request for a waiver of Clean Air Act preemption to enforce its Advanced Clean Car (ACC) regulations. The ACC combines the control of smog and soot causing pollutants and greenhouse gas (GHG) emissions into a single coordinated package of requirements for passenger cars, light-duty trucks and medium-duty passenger vehicles (and limited requirements related to heavy-duty vehicles). The ACC program includes revisions to California's Low Emission Vehicle (LEV) program as well as its Zero Emission Vehicle (ZEV) program. By today's decision, EPA has also determined that CARB's amendments to the ZEV program as they affect 2017 and prior model years (MYs) are within the scope of previous waivers of preemption granted to California for its ZEV regulations. In the alternative, EPA's waiver of preemption for CARB's ACC regulations includes a waiver of preemption for CARB's ZEV amendments as they affect all MYs, including 2017 and prior MYs. In addition, EPA is including CARB's recently adopted "deemed to comply" rule for GHG emissions in today's waiver decision. This decision is issued under section 209(b) of the Clean Air Act (the "Act"), as amended.

**DATES:** Petitions for review must be filed [INSERT DATE SIXTY DAYS AFTER FR PUBLICATION DATE OF THIS NOTICE].

**ADDRESSES:** EPA has established a docket for this action under Docket ID No. EPA-HQ-

OAR-2012-0562. All documents and public comments in the docket are listed on the [www.regulations.gov](http://www.regulations.gov) website. Publicly available docket materials are available either electronically through [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Air and Radiation Docket in the EPA Headquarters Library, EPA West Building, Room 3334, 1301 Constitution Ave., N.W., Washington, D.C. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding holidays. The telephone number for the Reading Room is (202) 566-1744. The Air and Radiation Docket and Information Center's Website is <http://www.epa.gov/oar/docket.html>. The electronic mail (e-mail) address for the Air and Radiation Docket is: [a-and-r-Docket@epa.gov](mailto:a-and-r-Docket@epa.gov), the telephone number is (202) 566-1742 and the fax number is (202) 566-9744.

**FOR FURTHER INFORMATION CONTACT:** Specific questions may be addressed to David Dickinson, Office of Transportation and Air Quality, Compliance Division (6405J - NLD), EPA, 1200 Pennsylvania Ave., NW, Washington, DC 20460, telephone: (202) 343-9256, e-mail: [Dickinson.David@epa.gov](mailto:Dickinson.David@epa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Table of Contents**

- I. Executive Summary
- II. Background
  - A. California's Advanced Clean Cars Program for New Motor Vehicles
  - B. EPA's Consideration of CARB's Request
- III. Analysis of Preemption Under Section 209 of the Clean Air Act
  - A. Clean Air Act Preemption Provisions
  - B. Deference to California
  - C. Burden of Proof
  - D. Comments Received on EPA's Application of the Section 209(b) Criteria
- IV. California's Within the Scope Request for its Zero Emission Vehicle Amendments

- A. Chronology
- B. CARB's ZEV Amendments
- C. EPA's Determination Regarding the Appropriateness of CARB's Within the Scope Request for the 2012 ZEV Amendments
- D. Application of the Within the Scope Waiver Criteria to CARB's 2012 ZEV Amendments Regarding 2017 and Earlier MYs
  - 1. Public Health and Welfare
  - 2. Consistency with Section 202(a)
  - 3. New Issues
- V. Consideration of the Advance Clean Car Regulations under the Full Waiver Criteria
  - A. California's Protectiveness Determination
    - 1. Comments on CARB's Protectiveness Determination
    - 2. Is California's Protectiveness Determination Arbitrary and Capricious?
    - 3. Section 209(b)(1)(A) Conclusion
  - B. Does California Need Its Standards to Meet Compelling and Extraordinary Conditions?
    - 1. EPA's March 6, 2008 GHG Waiver Denial
    - 2. EPA's July 9, 2009 GHG Waiver
    - 3. Response to Comments Received
    - 4. CARB's GHG Emission Standards
    - 5. CARB's ZEV Emission Standards
    - 6. CARB's PM Emission Standards
    - 7. Section 209(b)(1)(B) Conclusion
  - C. Are the California ACC Standards Consistent with Section 202(a) of the Clean Air Act?
    - 1. Historical Approach
    - 2. LEV III Criteria Pollutant Standards
      - a. Particulate Matter Standards
      - b. EPA's Response to Comments
    - 3. LEV III Greenhouse Gas Emission Standards
      - a. Comments on CARB's 2017 through 2025 GHG Emission Standards
      - b. EPA's Response to Comments
    - 4. California's ZEV Amendments as They Affect 2018 Through 2025 Model Years
      - a. Comments on CARB's ZEV Amendments
      - b. EPA's Response to Comments
      - c. Conclusion on Technological Feasibility
    - 5. Consistency of Certification Test Procedures
    - 6. Relevance of the Energy Policy and Conservation Act (EPCA) to the Waiver Decision

## VI. Decision

## VII. Statutory and Executive Order Reviews

### I. Executive Summary

Today, as Assistant Administrator of the EPA's Office of Air and Radiation, I am granting California's request for a waiver of Clean Air Act preemption for California's ACC that combines the control of smog and soot causing pollutants and GHG emissions into a single coordinated package of requirements for MY 2015 through 2025 passenger cars (PCs), light-duty trucks (LDTs), medium-duty passenger vehicles (MDPVs), and limited requirements related to heavy-duty vehicles (HDVs). The ACC program regulations include revisions to both California's LEV and ZEV programs. By letter dated June 27, 2012, CARB submitted a request (CARB waiver request) that EPA grant a waiver of preemption under section 209(b) of the Clean Air Act (CAA), 42 U.S.C. 7543(b) for the revisions to the LEV program (LEV III).<sup>1</sup> CARB also sought confirmation that the amendments to the ZEV program are within the scope of prior waiver decisions issued by EPA, or in the alternative requested a waiver for these revisions (the LEV III and ZEV amendments, together known as the ACC, are considered as CARB's waiver request). By letter dated December 7, 2012, CARB submitted additional information (CARB supplemental request) to EPA requesting that EPA consider as part of CARB's pending ACC waiver request the CARB's Executive Officer adopted "deemed to comply" regulation.<sup>2</sup> CARB's "deemed to comply" regulation, adopted by CARB's Board on November 15, 2012 and final action taken by CARB's Executive Officer on December 6, 2012, allows automobile manufacturers to demonstrate compliance with CARB's GHG standards by complying with

---

<sup>1</sup> CARB waiver request at EPA-HQ-OAR-2012-0562-0004. The cover letter to CARB's Waiver Request is at EPA-HQ-OAR-2012-0562-0004.

<sup>2</sup> CARB supplemental request at EPA-HQ-OAR-2012-0562-0374.

EPA's GHG standards which were published for those MYs.

By today's decision we are confirming that CARB's ZEV amendments, as they affect 2017 and prior MYs are within the scope of previous ZEV waivers. EPA also finds that the entire ACC program meets the criteria for a waiver of Clean Air Act preemption and thus we are granting a waiver for CARB's ACC program. Included in EPA's full waiver are CARB's "deemed to comply" regulations, and the ZEV regulations as they affect 2017 and prior MYs.

The legal framework for this decision stems from the waiver provision first adopted by Congress in 1967, and later modified in 1977. Congress established that there would be only two programs for control of emissions from new motor vehicles – EPA emission standards adopted under the Clean Air Act, and California emission standards adopted under state law. Congress accomplished this by preempting all state and local governments from adopting or enforcing emission standards for new motor vehicles, while at the same time providing that California could receive a waiver of preemption for its emission standards and enforcement procedures. Other states can only adopt standards that are identical to California's standards. This struck an important balance that protected manufacturers from multiple and different state emission standards, and preserved a pivotal role for California in the control of emissions from new motor vehicles. Congress recognized that California could serve as a pioneer and a laboratory for the nation in setting new motor vehicle emission standards. Congress intentionally structured this waiver provision to restrict and limit EPA's ability to deny a waiver. The provision was designed to ensure California's broad discretion to determine the best means to protect the health and welfare of its citizens.

Section 209(b) specifies that EPA must grant California a waiver if California determines that its standards are, in the aggregate, at least as protective of the public health and welfare as applicable federal standards. EPA may deny a waiver only if it makes at least one of three findings specified under the Clean Air Act (including whether California's "protectiveness finding" noted above is arbitrary and capricious). Therefore, EPA's role upon receiving a request for waiver of preemption from California is to determine whether it is appropriate to make any of the three findings specified by the Clean Air Act and if the Agency cannot make at least one of the three findings then the waiver must be granted. The three waiver criteria are properly seen as criteria for a denial – EPA must grant the waiver unless at least one of three criteria for a denial is met. This is different from most waiver situations before the Agency, where EPA typically determines whether it is appropriate to make certain findings necessary for granting a waiver, and if the findings are not made then a waiver is denied. This reversal of the normal statutory structure embodies and is consistent with the congressional intent of providing deference to California to maintain its own new motor vehicle emissions program.

The three criteria for denial of a waiver are: first, whether California's determination that its standards are, in the aggregate, at least as protective as applicable federal standards is arbitrary and capricious (Section 209(b)(1)(A)); second, whether California has a need for such standards to meet compelling and extraordinary conditions (Section 209(b)(1)(B)); and third, whether California's standards are consistent with Section 202(a) of the Clean Air Act (Section 209(b)(1)(C)). EPA and the Court of Appeals for the District of Columbia Circuit have consistently interpreted section 209(b) as placing the burden on the opponents of a waiver to

demonstrate that one of the criteria for a denial has been met.<sup>3</sup>

If California acts to amend a previously waived standard or accompanying enforcement procedure, the amendment may be considered within the scope of a previously granted waiver provided that it does not undermine California's determination that its standards in the aggregate are as protective of public health and welfare as applicable federal standards, does not affect its consistency with section 202(a) of the Clean Air Act, and raises no new issues affecting EPA's previous waiver decisions.<sup>4</sup>

In this case, California is combining three sets of motor vehicle emission standards into a single ACC waiver request. The standards are complimentary in the way they address interrelated ambient air quality needs and climate change. EPA has previously granted a series of waiver and within the scope decisions regarding CARB's LEV, ZEV and GHG emission programs.<sup>5</sup>

As part of EPA's public comment process for CARB's ACC waiver request, we have received comments from: several states and organizations representing states; health and environmental organizations; industry; and other stakeholders.<sup>6</sup> The vast majority of comments

---

3 *Motor and Equipment Manufacturers Ass'n v. EPA (MEMA I)*, 627 F.2d 1095, 1120-1121 (D.C. Cir. 1979).

4 Decision Documents accompanying within the scope of waiver determinations in 66 FR 7751 (January 25, 2001) at p. 5 and 51 FR 12391 (April 10, 1986) at p. 2, *see also, e.g.*, 46 FR 36742 (July 15, 1981).

5 EPA's LEV waiver decisions are found at 58 FR 4166 (January 13, 1993); 64 FR 42689 (August 5, 1999); 68 FR 19811 (April 22, 2003); 70 FR 22034 (April 28, 2005); and 75 FR 44951 (July 30, 2010). EPA's GHG waiver decisions are found at 73 FR 12156 (March 6, 2008) (GHG waiver denial); 74 FR 32744 (July 8, 2009) (GHG waiver); and 76 FR 34693 (June 14, 2011) (This prior within the scope decision included CARB's prior "deemed to comply" regulation for the 2012-2016 MYs). EPA's most recent ZEV waiver decisions are found at 71 FR 78190 (December 28, 2006); and 76 FR 61095 (October 3, 2011).

6 EPA received support for CARB's waiver request, in the form of oral testimony and/or written comment (all docket references are to EPA-HQ-OAR-2012-0562-XXXX, with the last four numbers associated with each comment) from: Environmental Defense Fund (EDF) – 0025 and 0353, the National Association of Clean Air Agencies (NACAA) – 0028, American Lung Association – 0029, Advanced Engine Systems Institute – 0030, Environment America – 0031, Consumer Federation of America (CFA) – 0032, Manufacturers of Emission Control

EPA received were in support of the waiver. EPA received opposition to certain elements of the waiver, including a joint comment submitted by the Association of Global Automakers and the Alliance of Automobile Manufacturers (Manufacturers or Manufacturers comment).<sup>7</sup> We also received opposition to the ACC waiver request from the National Automobile Dealers Association (NADA or Dealers, or NADA comment).<sup>8</sup>

After a thorough evaluation of the record, we have determined that the waiver opponents have not met their burden of proof in order for us to deny the CARB's waiver request under any of the three criteria in section 209(b)(1). EPA also confirms that CARB's ZEV amendments, as they affect the 2017 and earlier MYs are within the scope of previous waivers of preemption. In the alternative, EPA's waiver of preemption for CARB's ACC regulations includes a waiver of preemption for CARB's ZEV amendments as they affect all MYs, including 2017 and prior MYs.

## **II. Background**

### *A. California's Advanced Clean Car Program for New Motor Vehicles*

As further explained below, CARB has adopted amendments to title 13, California Code of Regulations (CCR), and has established a single coordinated package that includes amendments to three sets of regulations regulating emissions from new PCs, LDTs, MDPVs, and

---

(MECA) – 0033, Natural Resources Defense Council (NRDC) – 0347, South Coast Air Quality Management District (SCAQMD) – 0346, Sierra Club – 0348, Northeast States for Coordinated Air Uses Management (NESCAUM) – 0350, New York State Department of Environmental Conservation – 0351, Consumers Union - 0354, and Union of Concerned Scientists – 0355. EPA also received similar comment at the waiver public hearing, transcript found at EPA-HQ-OAR-2012-0562-0026.

<sup>7</sup> EPA-HQ-OAR-2012-0562-0349. EPA also received written comment from Toyota Motor North America (Toyota) at EPA-HQ-OAR-2012-0562-0372 which notes that “Toyota could be forced to employ a variety of costly marketing programs to ensure compliance if the market does not accept ZEV technology in the volumes anticipated by California.” Toyota notes that its further concerns are expressed in detail in the Manufacturers comments.

<sup>8</sup> EPA-HQ-OAR-2012-0562-0352.



certain HDVs<sup>9</sup>: the LEV regulation which includes two components - standards relating to criteria pollutants and standards to regulate GHG emissions, and the ZEV program.

This single ACC program combines the control of smog-causing pollutants and GHG emissions into a coordinated package of amendments and requirements for MY 2015 through 2025 in order to address near and long term smog issues within California and identified GHG emission reduction goals. The program also includes amended ZEV regulations and a Clean Fuels Outlet regulation. These additional program elements are designed to address these goals as well.<sup>10</sup> The ACC program, together, provides the regulated manufacturers with the ability to plan and integrate their product designs in order to meet applicable CARB emission requirements.

In order to achieve further emission reductions from the light- and medium-duty fleet, CARB adopted several amendments that represent a strengthening of its ongoing LEV regulations, including: a reduction of fleet average emissions of new PCs, LDTs, and MDPVs to super ultra-low-emission vehicle (SULEV) levels by 2025; replacement of separate non-methane organic gas (NMOG) and oxides of nitrogen (NO<sub>x</sub>) standards with combined NMOG plus NO<sub>x</sub> standards, which provides automobile manufacturers with additional flexibility in meeting the new stringent standards; an increase of full useful life durability requirements from 120,000 miles to 150,000 miles, which guarantees vehicles sustain these extremely low emission levels longer; a backstop to assure continued production of super-ultra-low-emission vehicles after

---

9 Medium-duty vehicles (MDVs) are vehicles in California's regulations between 8,500 and 114,000 lbs GVWR that are also called Class 2b/Class 3 vehicles. These vehicles are generally termed Heavy-duty vehicles under EPA's regulations.

10 CARB's Clean Fuel Outlet Regulation is not subject to preemption under section 209 of the Clean Air Act.

partial-zero-emission vehicles (PZEVs) as a category are moved from the ZEV regulations to the LEV regulations in 2018; more stringent particulate matter (PM) standards for light- and medium-duty vehicles, which will reduce the health effects and premature deaths associated with these emissions; zero fuel evaporative emission standards for PCs and LDTs, and more stringent standards for medium- and heavy-duty vehicles (MDVs); and, more stringent supplemental federal test procedure (SFTP) standards for PC and LDTs, which reflect more aggressive real world driving and, for the first time, require MDVs to meet SFTP standards.

The second component of CARB's LEV III regulations includes amendments to its GHG emission standards. CARB's GHG standards for the 2017 through 2025 MYs are designed to respond to California's identified goals of reducing GHG emissions to 80 percent below 1990 levels by 2050 and in the near term to reduce GHG levels to 1990 levels by 2020. As such, CARB's GHG amendments: reduce new light-duty CO<sub>2</sub> emissions from new light-duty regulatory MY 2016 levels by approximately 34 percent by MY 2025, and from about 251 grams of CO<sub>2</sub> per mile to 166 grams, based on the projected mix of vehicles sold in California; set emission standards for CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O; establish footprint based CO<sub>2</sub> emission standards, as distinguished from the current California GHG requirement of a fleet average GHG standard (this will allow manufacturers' new vehicle fleet CO<sub>2</sub> emissions to fluctuate according to their car-truck composition and sales according to vehicle footprint and will align the requirement with current federal GHG requirements); provide credits toward the CO<sub>2</sub> standard if a manufacturer reduces refrigerant emissions from the vehicle's air conditioning system; provide credits toward the ZEV standards if a manufacturer over complies with the LEV III GHG fleet

requirement; provide credits towards the CO<sub>2</sub> standards if a manufacturer produces full size pickups with high efficiency drive trains; provide credits for deployment of technologies that reduce off-cycle CO<sub>2</sub> emissions; and require upstream emissions from zero-emission vehicles to be counted towards a manufacturer's light-duty vehicle GHG emissions. CARB's GHG emission regulations also include an optional compliance path whereby manufacturers may demonstrate compliance with CARB's GHG emission regulations by complying with applicable EPA GHG emission requirements.

Lastly, CARB's ACC regulations include amendments to its ZEV regulations that can be described within two timeframes: 1) MY 2012 through 2017; and 2) MY 2018 and beyond. CARB's stated goal for amendments to the current ZEV regulation through MY 2017 is to make corrections and clarifications to its regulations and to enable manufacturers to successfully meet the 2018 and later MY requirements. These amendments include: a provision of compliance flexibility whereby carry forward credit limitations for ZEVs were removed, allowing manufacturers to bank ZEV credits indefinitely for use in later years (the flexibility also included slightly reducing the 2015 through 2017 credit requirement for intermediate volume manufacturers (IVM, less than 60,000 vehicles produced each year), to allow them to better prepare for requirements in 2018, and included a provision that allows ZEVs placed in any state that has adopted the California ZEV regulation to count towards the ZEV requirement through 2017 (i.e. extending the "travel provision" for BEVs through 2017); an adjustment of credits and allowances; and an addition of a new vehicle category (collectively "BEVx" vehicles) as a compliance option for manufacturers to meet up to half of their minimum ZEV requirement.

CARB's stated goal for its amendments affecting 2018 and subsequent MYs is the commercialization of ZEVs and "transitional zero-emission vehicles (TZEV; commonly a plug-in hybrid electric vehicle – PHEV). California would achieve this objective by simplifying its regulation and pushing higher production volumes which in turn would achieve cost reductions. These amendments include: an increased ZEV requirement for 2018 and subsequent MYs that pushes ZEVs and TZEVs to more than 15 percent of new sales by 2025; the removal of PZEV (near-zero emitting conventional technologies) and advanced technology PZEV (AT PZEV, typically non-plug-in HEVs) credits as compliance options for manufacturers; an allowance for manufacturers to use banked PZEV and AT PZEV credits earned in 2017 and previous MYs, but discount the credits, and place a cap on usage in 2018 and subsequent MYs; amended manufacturer size definitions that bring all but the smallest manufacturers under the full ZEV requirements by MY 2018; a *modified credit system that bases credits for ZEVs on range*, with 50 mile BEVs earning 1 credit each and 350 Mile FCVs earning 4 credits each (the range of credit reflects the utility of the vehicle (i.e. the zero emitting miles it may travel) and its expected timing for commercialization) along with a simplified and streamlined TZEV credits system; a modified "travel" provision that ends the travel provision for BEVs after MY 2017 and extends the travel provision for FCVs; and provisions allowing manufacturers who systematically over comply with the LEV III GHG fleet standard to offset a portion of their ZEV requirement in 2018 through 2021 MYs only.

*B. EPA's Consideration of CARB's Request*

By letter dated June 27, 2012, CARB submitted a request (CARB waiver request)

seeking a waiver of Section 209(a)'s prohibition for its ACC standards.<sup>11</sup> On August 31, 2012, a **Federal Register** notice (FR Notice) was published announcing an opportunity for hearing and comment on CARB's request.<sup>12</sup> EPA held a public hearing in Washington, DC on September 19, 2012. The written comment period closed on October 19, 2012.

EPA's FR Notice on CARB's waiver request asked for comment on several matters. Since CARB had submitted a within the scope request for its ZEV amendments as they affect both the 2012–2017 MYs and 2018 and subsequent MYs, EPA invited comment on the following issues: first, should California's ZEV amendments, as they affect the 2012–2017 MYs and/or the 2018 and later MYs, be considered under the within the scope criteria or should they be considered under the full waiver criteria?; second, to the extent part or all of those ZEV amendments should be considered as a within the scope request, do such amendments meet the criteria for EPA to confirm that they are within the scope of prior waivers? EPA also solicited comment in the event that EPA cannot confirm that some or all of CARB's ZEV amendments are within the scope of previous waivers. We also requested comment on all aspects of the full waiver analysis with regard to the ACC program (the LEV III criteria pollutant and GHG regulations, and the ZEV amendments to the extent EPA does not consider them under the within the scope analysis noted above). Therefore, we asked commenters to consider the following three criteria: whether (a) California's determination that its motor vehicle emission standards are, in the aggregate, at least as protective of public health and welfare as applicable Federal standards is arbitrary and capricious, (b) California needs such standards to meet compelling and

---

<sup>11</sup>EPA-HQ-OAR-2012-0562-0004.

<sup>12</sup> 77 FR 53199 (August 31, 2012).

extraordinary conditions, and (c) California’s standards and accompanying enforcement procedures are consistent with section 202(a) of the Clean Air Act.

Because CARB noted (in its waiver request and in its incorporated Board Resolution 12-11) its commitment to propose a “deemed to comply” rule for its GHG standards shortly after EPA finalized its light-duty vehicle GHG emission standards, EPA specifically invited comment on CARB’s waiver request in light of CARB’s explicit plans concerning adoption of a “deemed to comply” provision into its LEV III GHG standards.

### **III. Analysis of Preemption under Section 209 of the Clean Air Act**

#### *A. Clean Air Act Preemption Provisions*

Section 209(a) of the Act provides:

No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part. No State shall require certification, inspection or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment.<sup>13</sup>

Section 209(b)(1) of the Clean Air Act requires the Administrator, after an opportunity for public hearing, to waive application of the prohibitions of section 209(a) for any State that has adopted standards (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor engines prior to March 30, 1966, if the State determines that its State standards will be, in the aggregate, at least as protective of public health and welfare

---

<sup>13</sup> Clean Air Act (CAA) section 209(a), 42 U.S.C. §7543(a).

as applicable Federal standards.<sup>14</sup> However, no such waiver shall be granted by the Administrator if she finds that: (A) the protectiveness determination of the State is arbitrary and capricious; (B) the State does not need such State standards to meet compelling and extraordinary conditions; or (C) such State standards and accompanying enforcement procedures are not consistent with section 202(a) of the Act. In previous waiver decisions, EPA has stated that Congress intended EPA's review of California's decision-making be narrow. This has led EPA to reject arguments that are not specified in the statute as grounds for denying a waiver:

The law makes it clear that the waiver requests cannot be denied unless the specific findings designated in the statute can properly be made. The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209, so long as the California requirement is consistent with section 202(a) and is more stringent than applicable Federal requirements in the sense that it may result in some further reduction in air pollution in California.<sup>15</sup>

Thus, my consideration of all the evidence submitted concerning a waiver decision is circumscribed by its relevance to those questions that I may consider under section 209(b).

#### *B. Deference to California*

In previous waiver decisions, EPA has recognized that the intent of Congress in creating a limited review based on the section 209(b)(1) criteria was to ensure that the federal government did not second-guess state policy choices. This has led EPA to state:

---

<sup>14</sup> CAA section 209(b), 42 U.S.C. §7543(b). California is the only State which meets section 209(b)(1)'s requirement for obtaining a waiver. See S. Rep. No. 90-403 at 632 (1967).

<sup>15</sup> 36 FR 17458 (Aug. 31, 1971). Note that the more stringent standard expressed here, in 1971, was superseded by the 1977 amendments to section 209, which established that California must determine that its standards are, in the aggregate, at least as protective of public health and welfare as applicable Federal standards.

It is worth noting ... I would feel constrained to approve a California approach to the problem which I might also feel unable to adopt at the federal level in my own capacity as a regulator. The whole approach of the Clean Air Act is to force the development of new types of emission control technology where that is needed by compelling the industry to “catch up” to some degree with newly promulgated standards. Such an approach ... may be attended with costs, in the shaped of reduced product offering, or price or fuel economy penalties, and by risks that a wider number of vehicle classes may not be able to complete their development work in time. Since a balancing of these risks and costs against the potential benefits from reduced emissions is a central policy decision for any regulatory agency under the statutory scheme outlined above, I believe I am required to give very substantial deference to California’s judgments on this score.<sup>16</sup>

EPA has stated that the text, structure, and history of the California waiver provision clearly indicate both a congressional intent and appropriate EPA practice of leaving the decision on “ambiguous and controversial matters of public policy” to California’s judgment.<sup>17</sup>

The House Committee Report explained as part of the 1977 amendments to the Clean Air Act, where Congress had the opportunity to restrict the waiver provision, it elected instead to explain California’s flexibility to adopt a complete program of motor vehicle emission controls. The amendment is intended to ratify and strengthen the California waiver provision and to affirm the underlying intent of that provision, i.e., to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare.<sup>18</sup>

### *C. Burden of Proof*

In *Motor and Equip. Mfrs Assoc. v. EPA*, 627 F.2d 1095 (D.C. Cir. 1979) (*MEMA I*), the U.S. Court of Appeals stated that the Administrator’s role in a section 209 proceeding is to:

---

<sup>16</sup> 40 FR 23103-23104; *see also* LEV I (58 FR 4166), January 13, 1993) Decision Document at 64.

<sup>17</sup> 40 FR 23104; 58 FR 4166.

<sup>18</sup> *MEMA I*, 627 F.2d at 1110 (citing H.R.Rep. No 294, 95 Cong., 1<sup>st</sup> Sess. 301-02 (1977)).



consider all evidence that passes the threshold test of materiality and . . . thereafter assess such material evidence against a standard of proof to determine whether the parties favoring a denial of the waiver have shown that the factual circumstances exist in which Congress intended a denial of the waiver.<sup>19</sup>

The court in *MEMA I* considered the standards of proof under section 209 for the two findings necessary to grant a waiver for an “accompanying enforcement procedure” (as opposed to the standards themselves): (1) protectiveness in the aggregate and (2) consistency with section 202(a) findings. The court instructed that “the standard of proof must take account of the nature of the risk of error involved in any given decision, and it therefore varies with the finding involved. We need not decide how this standard operates in every waiver decision.”<sup>20</sup>

The court upheld the Administrator’s position that, to deny a waiver, there must be ‘clear and compelling evidence’ to show that proposed procedures undermine the protectiveness of California’s standards.<sup>21</sup> The court noted that this standard of proof also accords with the congressional intent to provide California with the broadest possible discretion in setting regulations it finds protective of the public health and welfare.<sup>22</sup>

With respect to the consistency finding, the court did not articulate a standard of proof applicable to all proceedings, but found that the opponents of the waiver were unable to meet their burden of proof even if the standard were a mere preponderance of the evidence. As we explained in the GHG waiver decision, although *MEMA I* did not explicitly consider the standards of proof under section 209 concerning a waiver request for “standards,” as compared

---

<sup>19</sup> *MEMA I*, 627 F.2d at 1122.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

to accompanying enforcement procedures, there is nothing in the opinion to suggest that the court's analysis would not apply with equal force to such determinations.<sup>23</sup> EPA's past waiver decisions have consistently made clear that: "[E]ven in the two areas concededly reserved for Federal judgment by this legislation - the existence of compelling and extraordinary' conditions and whether the standards are technologically feasible - Congress intended that the standards of EPA review of the State decision to be a narrow one."<sup>24</sup>

Finally, opponents of the waiver bear the burden of showing that the criteria for a denial of California's waiver request has been met. As found in *MEMA I*, this obligation rests firmly with opponents of the waiver in a section 209 proceeding, holding that: "[t]he language of the statute and it's legislative history indicate that California's regulations, and California's determinations that they must comply with the statute, when presented to the Administrator are presumed to satisfy the waiver requirements and that the burden of proving otherwise is on whoever attacks them. California must present its regulations and findings at the hearing and thereafter the parties opposing the waiver request bear the burden of persuading the Administrator that the waiver request should be denied."<sup>25</sup>

The Administrator's burden, on the other hand, is to make a reasonable evaluation of the information in the record in coming to the waiver decision. As the court in *MEMA I* stated, "here, too, if the Administrator ignores evidence demonstrating that the waiver should not be granted, or if he seeks to overcome that evidence with unsupported assumptions of his own, he

---

<sup>23</sup> 74 FR 32748

<sup>24</sup> See, e.g., 40 FR 21102-103 (May 28, 1975).

<sup>25</sup> *MEMA I*, 627 F.2d at 1121.

runs the risk of having his waiver decision set aside as ‘arbitrary and capricious.’<sup>26</sup> Therefore, the Administrator’s burden is to act “reasonably.”<sup>27</sup>

*D. Comments Received on EPA’s Application of the Section 209(b) Criteria*

The Dealers provided a series of suggestions on several threshold issues for how EPA should evaluate CARB’s ACC waiver request. While the ACC regulatory components are interrelated, the Dealers state that EPA should evaluate them separately by applying each of the three waiver criteria under section 209(b).<sup>28</sup>

This commenter also suggests that it is CARB’s burden to make a determination that its standards are at least as protective of the public health and welfare as any applicable federal standards, and to determine that the standards are technologically feasible.<sup>29</sup> This commenter also suggests that Congress allowed for a limited waiver only if California is able to show that its standards are necessary to address “the unique problems facing [the state] as a result of its climate and topography.”<sup>30</sup>

In addition, the Dealers suggest that a decision to deny a CARB waiver request only need meet a “preponderance of the evidence” standard. This commenter maintains that such a standard would preserve the traditional presumption in favor of CARB’s protectiveness determination while affording EPA or those opposed to the waiver the ability to uphold section 209’s general preemption. The commenter suggests that EPA mischaracterizes the MEMA

---

<sup>26</sup> *Id.* at 1126.

<sup>27</sup> *Id.*

<sup>28</sup> NADA does not address the application of the three waiver criteria to CARB’s LEV III criteria pollutant regulations .

<sup>29</sup> NADA comment at 3.

<sup>30</sup> *Id.*

decision within its prior GHG waiver decision when EPA stated “there is nothing in the opinion to suggest that the court’s analysis would not apply with equal force to such determinations.”<sup>31</sup>

The commenter states that because the Court opined that the “preponderance of the evidence standard governs the inquiry into technological feasibility,” and the Court determined that the appropriate standard of proof “must take into account the nature of risk of error involved in any given decision” it is therefore appropriate that EPA must use its discretion to determine the appropriate standard when evaluating a waiver request under each element of Section 209(b). To settle the question of the appropriate burden of proof the commenter cites *International Harvester v. Ruckelshaus* wherein the decision over burden of proof is informed by an analysis that balances the cost of a wrong decision on feasibility against the gains of a correct one: “These costs include the risk of grave maladjustments... and the impact on jobs and the economy from a decision which is only partially accurate ... against the environmental savings.”

With regard to the Dealers’ first suggestion that EPA should separately apply the waiver criteria to each of the ACC regulatory components (*e.g.*, GHG emission standards and ZEV), EPA notes that each part of CARB’s regulations are subject to EPA waiver review. As such, by today’s decision we address any adverse comments in that regard. However (and as explained in further detail under EPA’s analysis of each waiver criteria below), we believe the Dealers fundamentally misunderstand the specific language of the section 209(b), its congressional history, and EPA’s past administrative waiver practice. For example, although EPA would

---

31 74 FR 32748. EPA notes that the language following this statement, in the same paragraph of the GHG waiver decision, states “EPA’s past waiver decisions have consistently made clear that: “[E]ven in the two area concededly reserved for Federal judgment by this legislation – the existence of compelling and extraordinary conditions and whether the standards are technologically feasible – Congress intended that the standards of EPA review of the State decision to be a narrow one.”

typically examine whether CARB's regulation of each pollutant is as stringent as any applicable federal standard, we nevertheless recognize both the statutory language and legislative history that requires EPA to consider the protectiveness of a CARB standard "in the aggregate" of all emission standards covering that particular industry category (*e.g.*, light-duty vehicles, etc). Furthermore, under the second waiver criterion of section 209(b), EPA continues to evaluate whether those opposed to a waiver have demonstrated that CARB no longer experiences compelling and extraordinary conditions. As such, for any standard or set of standards presented to EPA for waiver consideration, EPA's evaluation continues to be whether CARB has a need for its motor vehicle emission program to address the underlying compelling and extraordinary conditions. This is further explained in our discussion of this waiver criterion. Similarly, although the Dealers might suggest that EPA only be obligated to determine whether each of CARB's ACC regulatory components, in isolation, is consistent with section 202(a) we believe the better approach is to determine the technological feasibility of each standard in the context of the entire regulatory program for the particular industry category. In this case, we believe CARB has in fact recognized the interrelated, integrated approach the industry must take in order to address the regulatory components of the ACC program. As noted above, the House Committee Report explained as part of the 1977 amendments to the Clean Air Act that California was to be afforded flexibility to adopt a *complete* program of motor vehicle emission controls (emphasis added). As such, EPA believes that Congress intended EPA to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare.<sup>32</sup> EPA believes this intent extends to CARB's flexibility in designing its motor vehicle

---

32 H.R. Rep No. 294, 95 Cong., 1<sup>st</sup> sess. 301-02 (1977).

emission program and evaluating the aggregate effect of regulations within the program.

With regard to CARB's initial burden in submitting a waiver request to EPA, we believe this commenter misreads both section 209(b) along with the case law and legislative history it cites. California is only required to make a protectiveness finding as a threshold matter before submitting its waiver request to EPA. Section 209(b) of the Clean Air Act plainly states that "The Administrator shall, ..., waive application of this section..., if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. No such waiver shall be granted if the Administrator finds that ...." Nothing on the face of section 209(b) requires California to make affirmative findings or showings under section 209(b)(1)(B) or (C). The *MEMA I* decision cited to by the commenter does not support the suggestion that CARB must initially make an affirmative determination or showing beyond the protectiveness determination. Of course, whether or not CARB has such a burden, CARB has clearly provided in its initial waiver request considerable support for its view that its waiver request meets the requirements of section 209(b)(1)(B) and (C).<sup>33</sup>

EPA continues to believe that the burden of proof for each waiver criteria lies on the opposing party. As earlier explained, this is inherent in the statutory provision that requires EPA to grant a waiver unless it makes one of the specific negative findings listed in section 209(b)(1).

The language of the statute and its legislative history indicate that California's regulations, and California's determination that they comply with the statute, when presented to the Administrator are presumed to satisfy the waiver requirements and that the burden of proving otherwise is on whoever attacks them. California must present its regulations and findings at the hearing, and thereafter the parties opposing the waiver request bear the burden of persuading the Administrator that the waiver

---

<sup>33</sup> CARB waiver request and supporting attachments.

request should be denied.<sup>34</sup>

Further, pertinent legislative history evinces Congressional intent to place the burden of proof on the party opposing a waiver. This appears most dramatically from the debates on the floor of the House over two alternative versions of the statutory language. One, sponsored by the relevant legislative committee, would have permitted the federal government, upon application showing by California, to set special California standards if certain conditions were met. The second, which was sponsored by the entire California delegation, see 113 Cong. Rec. H 14428 (Cong. Moss) (daily ed. Nov. 2, 1967), and eventually adopted on the floor, would have required the federal government to waive preemption of standards promulgated by California unless certain findings were made. Despite the understandable efforts of some sponsors of the committee language to portray the differences between the two versions as purely verbal the majority of the House clearly disagreed. 113 Cong. Rec. H 14404 (Cong. Herlong); H 14432 (Cong. Rogers) (daily ed. Nov. 2, 1967). Sponsors of the language eventually adopted (the language sponsored by the California delegation) referred repeatedly to their intent to make sure that no "Federal bureaucrat" would be able to tell the people of California what auto emission standards were good for them, as long as they were stricter than Federal standards. 113 Cong. Rec. H 14393 (Cong. Sess); H 14395 (Cong. Smith); H 14396 (Cong. Holffield); H 14399 (Cong. Hosmer); H 14408 (Cong. Roybal) ; H 14409 (Cong. Reinicke) ; H 14429 (Cong. Wilson) (daily ed. Nov. 2, 1967). Thus, at the close of the debate, the House rejected language that would have imposed the burden of proof on California and instead accepted language that

---

<sup>34</sup> *MEMA I*, 627 F.2d at 1121

which places the burden on those who allege, in effect, that EPA's GHG emission standards are adequate to California's needs. They also viewed the change as necessary to their intent to preserve the California state auto emission control program in its original form, see HR. Rep. No. 728, 90th Cong. 1st Se. 96-97 (1967) (separate views of Congressmen Moss and Van Deerlin), 113 Cong. Rec. H 14415 (daily ed. Nov. 2, 1967) (Cong. Van Deerlin) and to continuing the national benefits that might flow from allowing California to continue to act as a pioneer in this field. 113 Cong. Rec. H 14407 (Cong. Moss) (daily ed. Nov. 2, 1967); S 16395 (daily ed. Nov. 14, 1967) (Senator Murphy). These points had also previously been made by the Senate Public Works Committee in reporting out waiver language identical to that eventually adopted by the House. S. Rep. No. 403, 90th Cong. 1st Sess. 32-33 (1967).

As also explained in *MEMA I*:

Legislative history makes clear that the burden of proof lies with the parties favoring denial of the waiver. Petitioners lost the battle they now wage twelve years ago when Congress specifically declined to adopt a provision which would have imposed on California the burden to demonstrate that it met the waiver requirements. As noted, the Senate version of the Air Quality Act of 1967 contained the language which was ultimately adopted by Congress. It vested the power to make the protectiveness determination in California and sharply restricted the Secretary's role in a waiver proceeding. The Senate Report explained that under the proposal the "Secretary is required to waive application unless he finds" one of the factual circumstances set out in section 209(b)(1)(A)-(C). S. Rep. No. 403, 90th Cong., 1st Sess. 33 (1967).

Finally, with regard to the Dealers' arguments about the burden of proof, we believe it necessary to differentiate between two separate questions: 1) who has the burden of proof; and 2) what is the appropriate level of proof? A discussion of who holds the burden of proof is addressed above. Below is a discussion regarding the appropriate "level" of proof. EPA agrees



with the Dealers that EPA has the discretion to determine the appropriate level of proof, and we are guided by the language of the statute, relevant case law, and our prior administrative practice.

With regard to the standard of proof applicable to CARB's protectiveness determination, EPA rejects any contention that the standard should be anything other than "clear and compelling evidence." The language of section 209(b)(1)(A) requires that the Administrator find that CARB's protectiveness determination is "arbitrary and capricious" suggesting that EPA or others that may oppose the waiver must demonstrate that CARB's factual findings lacked any acceptable reasoning. As noted above, the *MEMA I* court upheld the Administrator's position that, to deny a waiver, there must be 'clear and compelling evidence' to show that proposed procedures undermine the protectiveness of California's standards.<sup>35</sup> The court noted that this standard of proof also accords with the congressional intent to provide California with the broadest possible discretion in setting regulations it finds protective of the public health and welfare.<sup>36</sup> EPA believes there is no reason to jettison the precedent along with its past administrative waiver practice merely because CARB seeks a waiver for "standards" as opposed to "accompanying enforcement procedures."

With respect to the second and third waiver criteria of section 209(b); however, EPA is also guided by the principles of deference noted above and by case law, as explained below in EPA's examination of technological feasibility. As the commenter notes, in the GHG waiver EPA reasoned that *MEMA I*'s holding on the applicable standard of proof should be extended to waiver of standards. EPA continues to believe that it is appropriate to impose a standard of

---

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

preponderance of evidence on the proponent of denial of a waiver of standards, for the second and third waiver criteria. This standard would also be similar to the standard in civil matters. “This view of the standard of proof dictates the standard normally adopted in civil matters, a preponderance of the evidence.”<sup>37</sup> EPA also believes that it should apply such a standard in a way that accords with congressional intent to provide California with the broadest possible discretion in setting regulations that it finds protective of the public health and welfare<sup>38</sup> while limiting EPA’s review to a narrow role that provides substantial deference to the State.<sup>39</sup>

Further, EPA agrees with the commenter that in making its determination, EPA should be mindful of the risk of error involved.<sup>40</sup> But this does not change the burden of proof. “The Administrator is not entitled to ignore the evidence adduced at the hearing. He must consider all evidence that passes the threshold test of materiality and he must thereafter assess such material evidence against a standard of proof to determine whether the parties favoring a denial of the waiver have shown that the factual circumstances exist in which Congress intended denial of the waiver.”<sup>41</sup>

In sum, based on the statutory structure of section 209(b)(1) and legislative history, the burden of proof falls on those who wish EPA to deny the waiver.

#### **IV. California’s Within the Scope Request for its Zero Emission Vehicle Amendments**

CARB’s waiver request sought confirmation from EPA that the ZEV amendments (2012 ZEV Amendments), as they relate to 2017 and prior MYs are within the scope of existing

---

37 *International Harvester v. Ruckelshaus*, 478 F.2d 615, 643 (D.C. Cir.) (*International Harvester*).

38 *MEMA I*, 627 F.2d at 1122

39 40 FR 23103-104

40 *MEMA I*, 627 F.2d at 1122

41 *Id.*

waivers. The ACC waiver request also sought confirmation that the 2012 ZEV amendments as they relate to 2018 and later MYs are within the scope of existing waivers, or, in the alternative, meets the criteria for a full waiver.

#### *A. Chronology*

California's initial ZEV program was included as part of its first low-emission vehicle program known as LEV I. The ZEV component of this program had a ZEV sales requirement starting with the 1998 MY and phasing in to a 10 percent sales requirement by the 2003 MY. EPA issued a waiver of preemption for these regulations on January 13, 1993.<sup>42</sup> CARB subsequently amended the ZEV regulations in March, 1996, by eliminating the ZEV sales requirement for the 1998–2002 MYs and retaining the 10 percent sales requirement for the 2003 and later MYs. EPA issued a within the scope determination for these amendments on January 5, 2001.<sup>43</sup> CARB again amended the ZEV regulations in 1999, 2001, and 2003 and on December 21, 2006, EPA waived preemption for these amendments through the 2011 MY.<sup>44</sup> The 2006 EPA action included a within the scope decision for certain components of the regulations and a full waiver authorization for other components. Specifically, EPA determined that certain provisions of the 1999–2003 amendments to the ZEV regulations affecting 2006 and prior MYs were within the scope of previous waivers of preemption. EPA's 2006 decision concurrently granted California's request for a waiver of preemption to enforce certain provisions of the ZEV regulations as they affected 2007 through 2011 MY vehicles. EPA also stated that that although we believed it appropriate to grant a full waiver of preemption for the 2007 MY, we also

---

<sup>42</sup> 58 FR 4166 (January 13, 1993).

<sup>43</sup> 66 FR 7751 (January 25, 2001).

<sup>44</sup> 71 FR 78190 (December 28, 2006).

believed it appropriate to consider the 2007 MY regulations (with one exception noted) as within the scope of previous waivers of preemption, as they applied to certain vehicles that were already subject to the pre-existing ZEV regulations. The 2006 waiver decision did not make any findings or determinations with regard to CARB's ZEV regulations as they pertained to the 2012 and later MYs. On October 3, 2011, EPA determined that additional CARB amendments to the ZEV regulations, as they affected 2011 and prior MYs, were within the scope of previous waivers for the ZEV regulations (or in the alternative qualified for a new waiver). At that time EPA also granted a waiver allowing California to enforce the ZEV amendments as they affected 2012 and later MYs.<sup>45</sup>

#### *B. CARB's ZEV Amendments*

CARB's stated goal for the 2012 ZEV amendments, as they affect the ZEV regulation through MY 2017, was to make minor corrections and clarifications and to enable manufacturers to successfully meet the 2018 and later MY ZEV requirements. As such, the 2012 ZEV amendments included compliance flexibility provisions, adjustment of credits and allowances, and the addition of a new vehicle category that can earn credits to help manufacturers satisfy their sales requirement.

The compliance flexibility provisions include several modifications to the ZEV program credit and travel provisions. The limitations on carry forward credits for ZEVs are removed, allowing for indefinite banking of ZEV credits. The travel provision for credits from ZEV sales in Section 177 states is extended through 2017. Travel provision credits limit the credits manufacturers need to generate to those necessary for California, no matter how many states

---

<sup>45</sup> 76 FR 61095 (October 3, 2011).

adopt the ZEV program under Section 177. Vehicles sold in section 177 states generate credits for California and vice versa under the travel provisions. The travel provision amendments allow for the continued travel of ZEV credits through MY 2017. Carry forward credits for ZEVs were previously limited to two additional model years. This limitation is removed by the 2012 amendments, allowing manufacturers to bank credits for all future model years. This modification is a flexibility to enable automakers to comply with the 2018 and later provisions.

In addition, the 2012 ZEV amendments provide for an adjustment of credits and allowances to incentivize longer-term technology. For example, the credits for Type V ZEVs (fuel cell vehicles with range of 300 miles or greater) are increased. Finally, the 2012 ZEV amendments create the addition of a new vehicle category that includes two new near-ZEV vehicle types: Type I.5x and Type IIx. These vehicles are plug-in hybrid electric vehicles (PHEVs) with more capable electric drive systems, but smaller engines that are not expected to be used often and have diminished performance. These vehicles can be used to meet up to one half of a manufacturer's minimum ZEV credit requirement. These vehicles will be eligible for the same credits as current Type I.5 (2.5 credits) and Type II (3 credits) and will qualify for travel provision credits through 2017.

Separately, CARB's stated goal for its 2012 ZEV amendments, as they affect 2018 and later MYs, is to achieve the commercialization of ZEVs and near-ZEVs such as PHEVs (with sales of approximately 15 percent of the new car market in California by 2025) by simplifying the regulation and pushing technology to higher volume production in order to achieve cost reductions. The amendments cover six major areas: increased ZEV requirements phased-in

through 2025; the removal of “commercialized” technology from the ZEV program; amended manufacturer size definitions, ownership requirements and transitions; a modified credit system, a modified travel provision; and a new opportunity for manufacturers to generate additional ZEV credits via over compliance with applicable GHG emission standards during this time period.

The increased ZEV credit requirements are equivalent to approximately 15 percent ZEV and near-ZEV sales by 2025. This sales level is deemed by CARB to be the threshold at which costs will decrease due to volume effects. The credit requirement is being ramped up from the current program’s static level of 16 percent total, which includes PZEVs and AT PZEVs. The new requirement consists of a 2 percent minimum ZEV and 2.5 percent minimum TZE (4.5 percent total) requirement, ramping up to 16 percent minimum ZEV and 6 percent minimum TZE (22 percent total) requirement in 2025 and beyond. The 2012 ZEV amendment revisions to credit calculations for ZEVs and TZE result in a projected market share of 15.4 percent of new sales in 2025.

Under the previous ZEV mandate, credits were allowed for PZEV-certified vehicles and HEVs which are not plugged in. CARB is removing these vehicle types from the credit scheme in MY 2018 and later. Remaining credits that are banked can continue to be used, but with discounts and caps applied.

Manufacturer size definitions have been amended to apply full ZEV mandate to all but the smallest manufacturers. Manufacturer sales volumes will be combined if joint ownership exceeds 33.4 percent and the transition period for manufacturers changing size categories has been modified. Under this system, 97 percent of the light-duty market will be covered by the

ZEV mandate.

Currently, manufacturers with sales volumes exceeding 60,000 units in California are classified as large volume manufacturers (LVM). This modification reduces the threshold to 20,000 units, which will bring most manufacturers under the full ZEV mandate. This modification is being made because many of these current intermediate vehicle manufacturers (IVMs) have a large market presence outside California. Remaining IVMs will be allowed to comply with the ZEV mandate with no restrictions on ZEV technology type, meaning an IVM can fully comply with TZEVs, but not PZEVs or AT PZEVs.

Additionally, ownership thresholds for treatment of automakers as one entity are being modified to more closely align them with GHG fleet regulations and changes are being made to the lead time provisions as manufacturers move between size classes.

CARB also modified its credit system. ZEV credits are based on range and technology reflecting utility of the vehicle and expected timing for commercialization. BEVs with a 50 mile range earn one credit and FCVs with 350 miles of range earn four credits each. Up to half a manufacturer's credit requirement may be met with more capable PHEVs which are meant to operate mainly as EVs, but are equipped with a small range-extending engine.

TZEVs, which are essentially PHEVs of the type available today such as the Chevrolet Volt have simplified credits based on electric range and a minimum requirement of 10 miles all-electric on the US06 test cycle. The TZEV credit ranges from a minimum of 0.2 to a maximum of 1.3 with a greater than 80 mile range.

Excess credits earned and banked from PZEVs and AT PZEVs will be discounted in

2018 and later years. Their use will then be limited to 25 percent of a manufacturer's TZEVE requirement. No portion of the ZEV requirement may be met with banked credits. Smaller manufacturers (IVMs) will not have their credits capped for 2018 or 2019. In 2020 and later, the IVM cap will be 25 percent, but applied to their combined ZEV/TZEVE requirement.

CARB has also modified the credit levels for various ZEV types. The current tiered CARB system, which encouraged manufacturers to design vehicles to meet a given range threshold is replaced with an equation that calculates credits based on the UDDS electric driving range.

In addition, CARB has modified its "travel provisions." The travel provision, which allows for the sale of a qualifying vehicle in a Section 177 state to count towards a manufacturer's credit requirement in California, ends for BEVs after 2017. Since FCVs are far behind BEVs in development and market penetration, travel credits are extended for FCVs. California intends to extend travel credits until sufficient refueling infrastructure exists to support FCVs in the market.

Lastly, the 2012 ZEV amendments provide that automakers who over comply with the LEV VIII GHG standard may use the extra GHG reductions to offset a portion of their ZEV requirement in MYs 2018 through 2021. Manufacturers may offset 50 percent of their ZEV mandate in 2018, ramping down to 30 percent in 2021, subject to certain requirements.

*C. EPA's Determination Regarding the Appropriateness of CARB's Within the Scope Request for the 2012 ZEV Amendments*

CARB primarily relies upon EPA's prior waiver and within the scope findings to demonstrate the appropriateness of applying the within the scope criteria to its 2012 ZEV



amendments. In EPA's 2006 waiver determination, EPA stated that it will conduct a two-part inquiry when considering whether CARB amendments to a previously waived regulation fall within the scope of the previously granted waiver or whether the amendments require a new waiver:

EPA believes it is important to distinguish between the threshold issue of whether CARB's amendments should be subjected to either the within-the-scope criteria or the full waiver, and separately determining whether the same amendments actually meet the applicable criteria for actually confirming the within-the-scope request or granting a full waiver of federal preemption.

In determining the threshold question, EPA will consider whether the amendments make minor technical revisions or provide compliance flexibility on the one hand or whether the amendments add new or more stringent pollutant standards or new motor vehicle categories on the other.<sup>46</sup>

With regard to the 2017 and earlier MYs, following the precedent noted above, CARB maintains that the 2012 ZEV amendments create no new issues affecting the previous waiver determinations concerning the ZEV program and that the 2012 ZEV amendments do not undermine CARB's original protectiveness determination and the ZEV regulations remain consistent with section 202(a). With regard to the 2018 and later MYs, CARB maintains that the within the scope criteria are appropriate since the overall ZEV credit requirement for MYs 2018 through 2022 is less burdensome than the currently waived program.

EPA received comment from the Manufacturers stating agreement that the amendments to the MYs 2009 through 2017 ZEV regulations qualify for a within the scope determination since the amendments increase the flexibility available to manufacturers to comply with those standards and otherwise lessen the burdens placed on manufacturers. However, the

---

<sup>46</sup> Decision Document accompanying waiver determination in 71 FR 78190 (December 28, 2006).

Manufacturers did not agree that the amendments to the ZEV regulation for 2018 and later MYs properly fall under the within the scope review. The commenter notes that in addition to the increase in the minimum ZEV credit requirements in 2018 MY and beyond, the CARB amendments also eliminate certain vehicle types (e.g., PZEVs and AT PZEVs) that were previously accepted towards compliance with the ZEV requirements during this time period. In addition, the Manufacturer notes that the changes to CARB's travel provisions are significant and raise serious compliance concerns.

The Dealers commented generally that the ZEV waiver should be denied, but raised no specific concerns about a within-the-scope determination for MYs 2012-2017.

Therefore, EPA has received no explicit comment suggesting that EPA reject CARB's request for confirmation that EPA evaluate the 2012 ZEV amendments as they affect the 2017 MY and earlier. EPA believes that it is appropriate to evaluate such amendments (which provide compliance flexibilities) under the within the scope criteria and applies such criteria below.

However, with respect to the 2018 and later MYs, EPA agrees with the commenters that CARB's 2012 ZEV amendments have, in total, added to the level of stringency and compliance obligations. Therefore, EPA does not believe it is appropriate to apply within the scope analysis to the ZEV amendments as they apply in the 2018 and later MYs. As explained below, because EPA is applying the full waiver criteria for the 2012 ZEV amendments as they pertain to the 2018 and later MYs, EPA will in the alternative also examine the revisions for the 2017 and earlier MYs using the full waiver criteria.

*D. Application of the Within the Scope Waiver Criteria to CARB's 2012 ZEV Amendments Regarding 2017 and Earlier MYs*

## 1. Public Health and Welfare

Under section 209(b)(1)(A) of the Act, EPA cannot grant a waiver if the Agency finds that CARB was arbitrary and capricious in its determination that its State standards are, in the aggregate, at least as protective of public health and welfare as applicable federal standards. Similarly, under the criteria for a within the scope determination, the CARB amendments to an existing program may be considered within-the-scope of a previously granted waiver provided that the amendments do not undermine California's determination that its standards in the aggregate are as protective of public health and welfare as applicable Federal standards. Thus, in the within the scope context CARB may rely on the "protectiveness determination" that the Board made at the time of the initial regulations (the regulations which subsequently received a waiver of federal preemption from EPA) and then CARB must only demonstrate why the protectiveness determination has not been undermined by CARB's amendments or any other intervening events such as the adoption of EPA regulations since the initial waiver of federal preemption.

CARB asserts that its 2012 ZEV amendments as applied to MYs 2009 to 2017 are a critical component of the ACC package that will result in fleet standards that are at least as protective as would exist under federal standards. The Board resolved "that the Board hereby determines that the proposed regulations approved for adoption herein will not cause the California motor vehicle emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards."<sup>47</sup>

---

<sup>47</sup> CARB Resolution 12-11 at EPA-HQ-OAR-2012-0562-0005.

EPA received no comments suggesting that CARB's request should be denied on the basis of CARB failing to meet its burden associated with the protectiveness findings under section 209(b)(1)(A) of the Clean Air Act.

Therefore, based on the record before us, we cannot find that CARB's 2012 ZEV amendments, as they affect 2017 and earlier MYs, would undermine CARB's prior protectiveness determinations nor would it cause the California motor vehicle emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards.

2. Consistency with Section 202(a)

Under section 209(b) (1)(C), EPA cannot grant California its waiver request if the Agency finds that California standards and accompanying enforcement procedures are not consistent with section 202(a) of the Clean Air Act. Previous waivers of federal preemption have stated that California's standards are not consistent with section 202(a) if there is inadequate lead time to permit the development of technology necessary to meet those requirements, given appropriate consideration to the cost of compliance within that time. California's accompanying enforcement procedures would also be inconsistent with section 202(a) if the federal and California test procedures were inconsistent.

The scope of EPA's review of whether California's action is consistent with section 202(a) is narrow. EPA has previously found that the determination is limited to whether those opposed to the waiver have met their burden of establishing that California's standards are technologically infeasible, or that California's test procedures impose requirements inconsistent

with the federal test procedure.<sup>48</sup>

As previously noted, CARB maintains that the 2012 ZEV amendments, as they pertain to the 2017 and previous MYs, provide manufacturers with additional flexibility without increasing on balance the overall stringency of the preexisting ZEV requirements. EPA has received no comments explicitly questioning the feasibility of the amendments as they apply to these MYs. In the discussion below, EPA addresses the limited comments regarding the technological feasibility concerns with regard to 2018 and later MYs and EPA provides further analysis of the general technological feasibility concerns in the full waiver discussion. With regard to whether test procedures are consistent, CARB notes that the federal Tier 2 regulations require manufacturers to measure emissions from ZEVs in accordance with the California test procedures.<sup>49</sup> In addition, EPA has not received comment suggesting the test procedures are inconsistent. Therefore, based on the record before us, we cannot deny CARB's within the scope request for 2017 and prior MYs based on an inconsistency with section 202(a).

### 3. New Issues

As noted above, included in the within the scope criteria, is a determination of whether the amendments raise new issues affecting the previous waiver decisions. As previously noted, EPA examines any new information when reviewing whether CARB's amendments affect the ZEV program's consistency with section 202(a). If the amendments had increased the stringency of the standards upon the manufacturers (for the specific model years being reviewed in the within the scope analysis), or if the amendments had regulated or subjected new types of vehicles

---

<sup>48</sup> See *MEMA I*, at 1126.

<sup>49</sup> CARB waiver request at 29, citing 40 C.F.R. §86.1811-04(n).

to be included in the ZEV program (or in this instance regulated the same vehicle types but for model years not previously waived by EPA), or added additional pollutants to the program, then likely new issues would have been created. However, in this instance no party has presented evidence that new issues exist for MYs 2017 and earlier as a result of the 2012 ZEV amendments. Therefore, EPA cannot deny CARB's request for a within the scope determination for MYs 2017 and earlier based on this criterion.

Therefore, based on the record before us, we cannot deny CARB's request for confirmation that its 2012 ZEV amendments, as they affect the 2017 and earlier MYs, are within the scope of previous waiver determinations. As such, we confirm CARB's request regarding the 2012 ZEV amendments as they affect 2017 and earlier MYs.

## **V. Consideration of Advanced Clean Car Regulations under the Full Waiver Criteria**

CARB's ACC program regulations include revisions to both California's LEV and ZEV programs. CARB's request seeks a waiver of preemption under section 209(b) of the Clean Air Act (CAA), 42 U.S.C. 7543(b) for the revisions to the LEV III program. CARB's request also seeks a waiver for the ZEV amendments included in the ACC program regulations. Subsequent to CARB's initial ACC waiver request, CARB's Executive Officer took action to formally adopt a "deemed to comply" regulation affecting the GHG component of the ACC package. CARB submitted this additional information to EPA and requested that EPA consider the "deemed to comply" regulation as part of CARB's pending ACC waiver request. EPA's application of the section 209(b) waiver request, including the "deemed to comply" regulation, is set forth below.

### *A. California's Protectiveness Determination*

Section 209(b)(1)(A) of the Clean Air Act requires EPA to deny a waiver if the Administrator finds that California was arbitrary and capricious in its determination that its State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. EPA recognizes that the phrase “States standards” means the entire California new motor vehicle emissions program. Therefore, as explained below, when evaluating California’s protectiveness determination, EPA compares the California-to-Federal standards. That comparison is undertaken within the broader context of the previously waived California program, which relies upon protectiveness determinations that EPA have previously found were not arbitrary and capricious.<sup>50</sup>

Traditionally, EPA has evaluated the stringency of California’s standards relative to comparable EPA emission standards.<sup>51</sup> That evaluation follows the instruction of section 209(b)(2), which states: “If each State standard is at least as stringent as the comparable applicable Federal standard, such State standard shall be deemed to be at least as protective of health and welfare as such Federal standards for purposes of [209(b)(1)].”

To review California’s protectiveness determination in light of section 209(b)(2), EPA

---

50 In situations where there are no Federal standards directly comparable to the specific California standards under review, the analysis then occurs against the backdrop of previous waivers which determined that the California program was at least as protective of the federal program ((LEV II + ZEV) + GHG). See 71 FR 78190 (December 28, 2006), Decision Document for Waiver of Federal Preemption for California Zero Emission Vehicle (ZEV) Standards (December 21, 2006).

51 36 FR 17458 (Aug. 31, 1971). (“The law makes it clear that the waiver requests cannot be denied unless the specific finding designated in the statute can properly be made. The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209, so long as the California requirement is consistent with section 202(a) and is more stringent than applicable Federal requirements in the sense that it may result in some further reduction in air pollution in California.”). The “more stringent” standard expressed here in 1971 was superseded by the 1977 amendments to section 209, which established that California’s standards must be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. The stringency standard remains, though, in section 209(b)(2).

conducts its own analysis of the newly adopted California standards to comparable applicable Federal standards. The comparison quantitatively answers whether the new standards are more or less protective than the Federal standards. That comparison of the newly adopted California standards to the applicable Federal standards is conducted in light of prior waiver determinations. That is, the California-to-Federal analysis is undertaken within the broader context of the previously waived California program, which relies upon protectiveness determinations that EPA has not found arbitrary and capricious.<sup>52</sup>

A finding that California's determination was arbitrary and capricious under section 209(b)(1)(A) must be based upon "'clear and compelling evidence' to show that proposed [standards] undermine the protectiveness of California's standards."<sup>53</sup> Even if EPA's own analysis of comparable protectiveness or that suggested by a commenter might diverge from California's protectiveness finding, that is not a sufficient basis on its own for EPA to make a section 209(b)(1)(A) finding that California's protectiveness finding is arbitrary and capricious.<sup>54</sup>

CARB has made a series of protectiveness determinations with regard to its ACC program. California made a protectiveness determination with regard to the 2012 ZEV and LEV amendments in CARB's Resolution 12-11, finding that the amendments would not cause the California motor vehicle emission standards, in the aggregate, to be less protective of public

---

<sup>52</sup> In situations where there are no Federal standards directly comparable to the specific California standards under review, the analysis then occurs against the backdrop of previous waivers which determined that the California program was at least as protective of the federal program ((LEV II + ZEV) + GHG). See 71 FR 78190 (December 28, 2006), Decision Document for Waiver of Federal Preemption for California Zero Emission Vehicle (ZEV) Standards (December 21, 2006).

<sup>53</sup> *MEMA I*, 627 F.2d at 1122.

<sup>54</sup> "Once California has come forward with a finding that the procedures it seeks to adopt will not undermine the protectiveness of its standards, parties opposing the waiver request must show that this finding is unreasonable." *MEMA I*, 627 F.2d at 1124.



health and welfare than applicable federal standards.<sup>55</sup> CARB noted that this protectiveness determination is the logical extension of the comparable findings that were found to be sufficient in the analyses of California's previous protectiveness determinations for its ZEV, LEV, and GHG regulations.<sup>56</sup> As explained in CARB's waiver request, the ACC program will result in reductions of both criteria pollutants and GHG emissions that, in the aggregate, are more protective than the pre-existing federal standards. CARB's Resolution 12-11 also sets forth the Board finding that "It is appropriate to accept compliance with the 2017 through 2025 MY National Program as compliance with California's GHG emission standards up through the 2017 through 2025 MYs, once U.S. EPA issues their Final Rule on or after its current July 2012 planned release, provided that the GHG reductions set forth in U.S. EPA's December 1, 2011 Notice of Proposed Rulemaking for 2017 through 2025 model year passenger vehicles are maintained, except that California shall maintain its own reporting requirements." Further, CARB's Resolution 12-21 sets forth that the CARB staff "prepared three separate Regulatory Notices ... for these amendments [LEV III/GHG and ZEV] and presented them to the Board with a single coordinated analysis of emissions, costs, and associated environmental impacts and benefits."<sup>57</sup> CARB's Resolution 12-21 also resolves that the "recitals and findings contained in Resolution 12-11, are incorporated by reference herein."<sup>58</sup>

In addition, at the time CARB adopted the "deemed to comply" regulation, the CARB

---

<sup>55</sup> See CARB's Resolution 12-11, EPA-HQ-OAR-2012-0562-0006 at 22. EPA notes that the CARB Board also resolved that it found that separate California standards and test procedures are necessary to meet compelling and extraordinary conditions. *Id.* at 23.

<sup>56</sup> CARB's waiver request at 13, citing 76 FR 61095 (October 3, 2011), 68 FR 19811 (April 22, 2003), and 74 FR 32744 (July 8, 2009), respectively.

<sup>57</sup> CARB Resolution 12-21 at 7.

<sup>58</sup> *Id.* at 10.

Board found that such amendments do not undermine the Board's previous determination that the regulation's emission standards, other emission related requirements, and associated enforcement procedures are, in the aggregate, at least as protective of public health and welfare as applicable federal standards and are consistent with section 209 of the Clean Air Act.<sup>59</sup> Therefore, subsequent to the finalization of EPA's GHG regulation (August 31, 2012), and as part of the CARB Board's adoption of the "deemed to comply" rule on November 15, 2012, the Board resolved and determined "that the proposed regulations approved for adoption herein will not cause California motor vehicle emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards."<sup>60</sup>

With regard to criteria pollutants, CARB notes that the primary fleet average emission requirement, beginning in 2015, declines every year to a fleet average NMOG plus NO<sub>x</sub> emission standard of 0.030 g/mi in 2025. CARB notes that this is clearly more stringent than the current federal Tier 2 fleet average NO<sub>x</sub> emission requirement with its implied fleet average NMOG and plus NO<sub>x</sub> requirement. In addition, the LEV III PM standards 3 mg/mi and 1 mg/mi are also significantly more stringent than the federal Tier 2 PM standards. CARB also notes that while there is no criteria emissions benefit with its ZEV requirements in terms of vehicle (tank-to-wheel – TTW) emissions since the LEV III criteria pollutant fleet standard is responsible for the emission reductions, but CARB notes that in terms of upstream emission impacts (well-to-wheel – WTW) there are emission reductions achieved from the ZEV requirements. There are no comparable federal standards.

---

<sup>59</sup> See CARB's Resolution 12-35; EPA-HQ-OAR-2012-0562-0374.

<sup>60</sup> *Id.* at p. 9.

CARB also notes that with regard to GHG emissions, the ACC program as a whole would provide major reductions in GHG emissions (e.g., by 2025 CO<sub>2</sub> emissions would be reduced by almost 14 million metric tonnes (MMT) per year, which is 12 percent from baseline levels). CARB's ACC waiver request, notes that the federal GHG standards do not become more stringent in the 2017-2025 MYs, as CARB's do. However, CARB states that it understands more stringent standards will "soon be finalized."

At the time the Board adopted the "deemed to comply" amendments it had before it the "Staff Report: Initial Statement of Reasons demonstrating that if a National Program standard was theoretically applied only to California new vehicle sales alone, it might create a GHG deficit of roughly two million tons compared to the California standards."<sup>61</sup> CARB notes that there might be a GHG emission deficit if the National Program applied in California, and thus CARB's GHG emission standards are at least as stringent as the EPA GHG emission standards.

#### 1. Comments on CARB's Protectiveness Determination

The Dealers commented on CARB's protectiveness determinations for both its GHG emission standards and its ZEV regulations. At the outset, NADA claims that EPA must conduct a separate preemption waiver evaluation for each set of standards in the ACC program (e.g., LEV III criteria pollutants, GHG, and ZEV). EPA notes that NADA did not address the preemption waiver request for the CARB LEV III standards.

In the context of considering the ACC standards individually, NADA states that EPA

---

<sup>61</sup> EPA-HQ-OAR-2012-0562-0374 at 3. CARB also notes that to the extent a manufacturer chooses not to exercise their National Program compliance option in California this would actually provide additional GHG benefits in California, so compliance in California can never yield fewer cumulative greenhouse gas reductions from the industry wide fleet certified in California.

must reject CARB's GHG preemption waiver request because CARB's finding is premature. NADA maintains that CARB has not conducted the necessary investigation to support its protectiveness determination because EPA has now finalized its GHG emission standards. NADA claims that CARB's determination should measure the standards that exist at the time EPA makes its waiver decision. NADA contends that rather than allowing CARB to look at the program as a whole, CARB must be required to examine each standard before the Agency, including the GHG standards at issue. In the alternative, the commenter suggests that CARB's protectiveness determination is arbitrary and capricious since CARB itself cites the absence of the federal GHG standards as reason for its protectiveness determination. Finally, the commenter argues that CARB's conclusions are not backed by facts or analysis and contradict the actuality that emissions from other parts of the world and the United States affect global concentrations, and therefore concentrations in California. The Dealers state that it therefore follows that GHG concentrations in California will be reduced by a greater amount if reductions occur on a nationwide basis, rather than just statewide. Thus by definition, CARB standards for limiting GHG emissions from California cars are less protective than the applicable federal standards.

CARB's supplemental comments, in response to NADA's claims, note that California demonstrated that it was reasonable for the Board to determine that the California standards "as submitted" are, in the aggregate, as or more stringent than the applicable federal standards.<sup>62</sup> CARB suggests this was a relatively simple determination at the time of CARB's June 2012

---

<sup>62</sup> CARB submitted comment on November 14, 2012 (CARB supplemental comment). EPA-HQ-OAR-2012-0562-0373.

waiver request because: 1) EPA's proposed 2017-2025 MY GHG standards were not finalized; 2) EPA had not proposed or finalized a 1 mg/mile PM standard and other criteria pollutant improvements for 2015 and later MYs; and 3) EPA has no ZEV program that may achieve an additional incremental wells-to-wheels criteria pollutant reduction. CARB states that this prior and timely Board determination remains sound despite the now finalized EPA GHG standards because 2) and 3) remain true and because EPA GHG standards: 1) do not account for upstream GHG emissions as does California's GHG program; 2) include vehicle multipliers for natural gas vehicles, effectively diluting federal standards vis a vis California's; and 3) contains relaxed criteria for GHG credits for mild hybrid-electric vehicle trucks, which also dilutes the federal standard. CARB also notes that to the extent manufacturers choose the EPA GHG standard compliance path to demonstrate compliance with California standards that results in essentially equal reductions (as stringent) of GHG emissions in California. Separately, CARB states that NADA's attempt to exclude CARB's LEV III standards from the "in the aggregate" protectiveness determination cannot be countenanced since this would render the phrase "in the aggregate" superfluous.

In addition, within CARB's Resolution 12-35, adopted on November 15, 2012, CARB addresses two issues raised by NADA's comments to EPA. CARB's Resolution 12-35 notes the question of whether the CARB Board failed to make a finding that California's passenger vehicle program remains as protective as applicable federal standards given the proposed "deemed to comply" rule on September 14, 2012 and also notes the question whether California's program is no longer as protective given the 2017 through 2025 MY National Program. First, it states that

it sufficiently addressed NADA's protectiveness issues in its November 14, 2012 supplemental submittal to EPA. Within this submission, CARB noted that it was reasonable for the Board to determine that the California standards *as submitted* are, in the aggregate, as or more stringent than the applicable federal standards. CARB maintains that at the time of its June 2012 waiver submittal its protectiveness determination was a fairly simple one since EPA's 2017-2025 GHG standards were not finalized, EPA had not proposed nor finalized a 1 mg/mile PM standard and other criteria pollutant improvements for 2015 and later MYs, and EPA has no ZEV program that may achieve an additional incremental well-to-wheels criteria pollutant reduction. CARB notes that the Board's determination remains solid despite the now finalized National Program rule because EPA still has no LEV III criteria pollutant/PM equivalent requirements and because EPA's GHG standards do not account for upstream GHG emissions as do California's, and because the National Program includes vehicle multipliers for natural gas vehicles and relaxes criteria for GHG credits for mild hybrid electric vehicle trucks.

EPA also received comment regarding CARB's protectiveness determination for its ZEV standards. The Dealers suggest that CARB failed to adequately provide a protectiveness determination, and such a determination is drawn into question given CARB's stated conclusions that there is no TTW emission benefits from ZEV and that the ZEV regulation does not provide any additional GHG emission reductions beyond the GHG standards. The Dealers claim that CARB's failure to make a protectiveness determination regarding its ZEV standard is inherently arbitrary and capricious.

CARB states that contrary to NADA's assertion that it must make an individual

protectiveness determination regarding its ZEV amendments CARB believes that requiring California to show that each standard (including the ZEV standard) is at least as protective in the aggregate would in effect ignore the phrase “in the aggregate” in section 209(b). CARB states that is why it made one protectiveness determination. CARB notes that purpose of the ZEV regulation is to commercialize the technologies needed to meet long term goals even beyond the emission reductions anticipated by the LEV III program.<sup>63</sup>

## 2. Is California’s Protectiveness Determination Arbitrary and Capricious?

As described above, EPA’s traditional analysis has been to evaluate California’s protectiveness determination by comparing the new California standards, or amendments, to applicable EPA emission standards for the same pollutants. EPA notes that the “more stringent” standard expressed in 1971 was superseded by the 1977 amendments to section 209, which established that California’s standards must be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards. As noted above, this was intended to afford California the broadest possible discretion in designing its motor vehicle emission program. The comparison is undertaken within the broader context of the previously waived California program, which relies upon protectiveness determinations that EPA have previously found were not arbitrary and capricious.

EPA believes that the Dealers misapply our prior statement, made in EPA’s 2009 GHG waiver decision, that the most straightforward reading of the comparison called for by the statute,

---

<sup>63</sup> CARB’s supplemental comments at 3-4. CARB also references table 6.2 of its Initial Statement of Reasons (ISOR) that details the well to wheel emissions benefits of the ZEV program compared to the LEV III program. EPA-HQ-OAR-2012-0562-0008.

between California and Federal standards, is an “apples to apples” comparison.<sup>64</sup> The stated purpose of the “apples to apples” phrase was to determine what the “applicable” Federal standards are for purposes of evaluating a protectiveness determination, in response to comments that the federal CAFE standards adopted by NHTSA should be considered applicable federal standards for purposes of this waiver criterion. EPA explained in the GHG waiver decision that “The term ‘applicable’ has to refer to what Federal standards apply, and the most straightforward meaning is that they apply in the same way that the California standards apply, by setting limits on emissions of air pollutants.” Therefore, given the uniqueness of a CARB waiver request that includes interrelated standards applicable to the same vehicle category EPA believes CARB’s approach of making one protectiveness determination for its ACC program is a reasonable approach permitted under section 209(b).<sup>65</sup> Although section 209(b)(2) informs EPA of the conclusion it must draw if each standard is at least as stringent as the comparable federal standard, EPA notes the protectiveness determination that CARB presents in a waiver request typically includes an implicit or explicit in the aggregate protectiveness determination since CARB typically examines whether its new standards (plural) undermine previous protectiveness determinations, which EPA evaluated in prior waiver decisions. In this context, once CARB presents an in the aggregate protectiveness determination EPA believes it appropriate to initially evaluate such standards in a side-by-side comparison with applicable Federal standards and then determine whether such standards are, in the aggregate, as protective as applicable Federal

---

<sup>64</sup> See 74 FR at 32750.

<sup>65</sup> EPA also notes that CARB has provided complete information and determinations that even in the context of comparing individual standards their standards are as protective of public health and welfare as applicable Federal standards/



standards.

In the context of CARB's ACC standards this side-by-side analysis is simple. EPA has already determined that California was not arbitrary and capricious in its determination that the pre-existing California standards for light-duty vehicles and trucks, known as LEV II, is at least as protective as comparable federal standards, known as the Tier II standards.<sup>66</sup> In this instance, CARB has finalized new and more stringent criteria pollutant standards (LEV III) while the Tier II standards remain in place at the federal level. In the absence of newer EPA standards since the time of its prior waiver for CARB's LEV II standards there is a clear rational basis for CARB's determination that its standards will be at least as protective of human health and welfare as applicable federal standards.

The Dealer's comments assert that CARB's protectiveness determination was premature because that assessment occurred before EPA finalized its own GHG emission standards. However, EPA believes that CARB's initial protectiveness determination (submitted to EPA in CARB's June 2012 waiver request) was not premature and was appropriate given the EPA standards in effect at that time. At the time CARB submitted its waiver request, EPA's GHG emission standards for the 2017 through 2025 MYs were the same for those MYs as for MY 2016, while CARB's were becoming more and more stringent over that period; therefore, CARB's protectiveness finding was reasonable at that time.

Subsequent to EPA's promulgation of its final GHG standards, in the context of CARB's "deemed to comply" regulation, CARB has provided an updated protectiveness determination

---

<sup>66</sup> 68 FR 19811 (April 22, 2003) and Decision Document for Waiver of Federal Preemption for Low Emission Vehicle Amendments (LEV II) (April 11, 2003).

(see Resolution 12-35) regarding the California GHG emission standards, in terms of the underlying benefits of CARB's program. EPA finds California to be correct in its determination that the "deemed to comply" regulation does not undermine CARB's determination that its regulations are in the aggregate as protective as EPA's standards. CARB's regulation will achieve, in the aggregate, equal or even additional GHG emission reductions in California relative to federal GHG standards, even if manufacturers choose to comply with the California regulations by complying with EPA's GHG emission standards. As noted above, EPA's National Program standards do not account for upstream GHG emissions as do California's and EPA's GHG standards includes vehicle multipliers for natural gas vehicles and relax criteria for GHG credits for mild hybrid electric vehicle trucks. EPA also believes that CARB correctly notes that even with the "deemed to comply" amendments, one or more manufacturers could still choose to continue demonstrating compliance in California under the existing California regulations. To the extent manufacturers choose EPA's GHG standards as the compliance path – in California – the California standard, by definition would yield at least, essentially equivalent GHG reductions, so California's standards cannot be less stringent.

The Dealers seem to suggest that with EPA's GHG standards there will be a greater reduction of GHG emissions compared to the California GHG emission standards. California's protectiveness determination applies only to the protectiveness of CARB's emission standards, in California, compared to applicable federal standards. EPA believes that the Dealers ignore the obvious, that all stakeholders, including California, recognize the need for reductions of GHG emissions, as well as emissions of other pollutants, on a national basis. The federal GHG

emission standards, applied in 50 states, will generally result in more emission reductions than CARB standards applied solely in California. If California were required to achieve equal emission results (with reductions counted only in California) to a federal program this would render 209(b) unusable. The relevant comparison is between the emission reductions achieved in California under the California program versus the emission reductions in California under the comparable federal program. Emissions reductions in other states are not considered, which is appropriate because the waiver decision affects only California's emission standards, not the federal standards that exist regardless of EPA's decision. EPA believes, and the record contains no evidence otherwise, that the reductions due to CARB's GHG emission standards in California versus the reductions of the comparable federal GHG emission standards in California, demonstrates that CARB's GHG emission standards are at least as protective as applicable federal standards. EPA notes that NADA raised similar arguments in the context of EPA's within the scope waiver decision, issued on June 14, 2011, for CARB's GHG emission amendments that included a "deemed to comply" provision for GHG emission standards during the 2012 through 2016 MYs. EPA noted "Thus, at the very least, compliance with California's GHG standards under the revised regulations will result in the same, if not more, emission reductions than would occur in the absence of the California standards. NADA provides no evidence that CARB's standards are less protective than the applicable Federal standards. As such, NADA fails to present any evidence or make any showing that the amendments undermine California's previous determination that its standards, in the aggregate, are at least as protective of public health and welfare as applicable Federal standards."<sup>67</sup>

---

67 76 FR 34693, 34696 (June 14, 2011)/

With regard to CARB's ZEV amendments EPA believes that CARB has provided a reasoned basis for their determination that the ZEV regulations are as protective of public health and welfare as comparable federal requirements, which for ZEV are nonexistent. In EPA's 2006 ZEV waiver proceeding, EPA conducted its traditional analysis to compare California's newly enacted ZEV standards to a similar lack of applicable federal standards. At that time California found, and EPA deemed reasonable, that the addition of the ZEV standards did not render California's LEV II program, for which a waiver had previously been granted, less protective than the federal Tier II program. In addressing the Alliance of Automobile Manufacturers' petition for reconsideration with respect to this issue, EPA stated that "the words 'standards' and 'in the aggregate' in section 209(b)(1)(A) \*\*\* , at minimum, include all the standards relating to the control of emissions for a category of vehicles (*e.g.*, passenger cars, etc.) subject to CARB regulation, particularly where the standards are designed to respond to the same type of pollution."<sup>68</sup> California's ZEV and GHG emission standards are an addition to its LEV program. EPA has not received any comment to suggest that the existence of either of these additional regulatory components undermines the protectiveness of CARB's LEV III emission standards. Although the Dealers suggest that "consumers facing a CARB-constrained mix at their local dealership may elect to buy a CARB-exempted brand, to purchase a late-model used vehicle, or defer vehicle purchases altogether," EPA believes that the Dealers have failed to present any legal argument as to why EPA should take this into consideration within the waiver criteria. We also find that the Dealers have failed to provide evidence, under any standard of

---

<sup>68</sup> Decision Document for Waiver of Federal Preemption for California's Zero Emission Vehicle (ZEV) Standards (December 21, 2006) and EPA's August 13, 2008 Response to Petition for Administrative Reconsideration of EPA's ZEV Waiver Decision (through the 2011 Model Year) published on December 28, 2006.

proof, as to whether such outcomes would ultimately impair the protectiveness of CARB's emission standards. EPA believes it is appropriate, and certainly reasonable, for CARB to evaluate its standards in the aggregate when the nature of its regulations are interrelated and the regulations are submitted to EPA as one ACC program. Although NADA suggests that CARB failed to make an individual protectiveness determination for its ZEV standards, EPA believes this is of no significance in light of the overall protectiveness of CARB's emission standards and the lack of an applicable federal ZEV program. The Dealers mere contentions, which CARB reasonably refutes in its supplement comments,<sup>69</sup> that there is no criteria emission benefit from the ZEV proposal in terms of TTW emissions, and that the ZEV regulation does not provide GHG emission reductions in addition to the LEV III GHG regulation, suggest no reason to find that CARB's ACC program is any less protective of public health and welfare because of the existence of such ZEV standards.

### 3. Section 209(b)(1)(A) Conclusion

Based on the record before EPA, we cannot find that CARB was arbitrary and capricious in its finding that the California ACC program standards, including the LEV III criteria pollutant and GHG emission standards along with its ZEV amendments are, in the aggregate, at least as protective of public health and welfare as applicable federal standards.

#### *B. Does California Need Its Standards to Meet Compelling and Extraordinary Conditions?*

Under section 209(b)(1)(B) of the Act, EPA cannot grant a waiver if EPA finds that California "does not need such State standards to meet compelling and extraordinary conditions." EPA has traditionally interpreted this provision as requiring a consideration of

---

<sup>69</sup> See CARB supplemental comments at 3-4.

whether California needs a separate motor vehicle program to meet compelling and extraordinary conditions. However in EPA's March 6, 2008 denial of CARB's GHG waiver request (GHG waiver denial), EPA limited this interpretation to California's motor vehicle standards that are designed to address local or regional air pollution problems. EPA determined that the traditional interpretation was not appropriate for standards designed to address a global air pollution problem and its effects and that it was appropriate to address such standards separately from the remainder of the program. EPA then found that California did not need such standards to meet compelling and extraordinary conditions. The interpretation adopted in the March 6, 2008 waiver denial was before EPA for reconsideration when CARB resubmitted its GHG waiver request and EPA announced a new opportunity for hearing and public comment on February 12, 2009.<sup>70</sup>

Set forth below is a summary of EPA's departure from the traditional interpretation of section 209(b)(1)(B) in the GHG waiver denial along with EPA's return to the traditional interpretation (confirmed today) in EPA's waiver of preemption of CARB's GHG standards on July 8, 2009 (GHG waiver).<sup>71</sup> Because EPA received comment suggesting that CARB's GHG and ZEV standards do not meet the requirements of section 209(b)(1)(B), EPA believes it useful to recount the interpretive history associated with both GHGs and traditional local and regional air pollutants to explain why EPA believes that section 209(b)(1)(B) should be applied in the same manner for all air pollutants.

As explained below, EPA finds that the opponent of the ACC waiver has not met its

---

<sup>70</sup> 74 FR 7040 (February 12, 2009).

<sup>71</sup> 74 FR 32744 (July 9, 2009).

burden of demonstrating why CARB no longer has a need for its motor vehicle emissions program under EPA's interpretation of section 209(b)(1)(B). Although EPA is not adopting the Dealers suggested interpretation, EPA also finds that the opponent of the waiver has not met its burden of demonstrating that CARB does not have the need for either its GHG or ZEV standards

#### 1. EPA's March 6, 2008 GHG Waiver Denial

In the March 6, 2008 waiver denial, EPA provided its reasoning for changing its long-standing interpretation of this provision, as it pertains to California standards designed to address global air pollution. EPA described its longstanding interpretation in some detail, stating that:

Under this approach EPA does not look at whether the specific standards at issue are needed to meet compelling and extraordinary conditions related to that air pollutant. For example, EPA reviewed this issue in detail with regard to particulate matter in a 1984 waiver decision.<sup>72</sup> In that waiver proceeding, California argued that EPA is restricted to considering whether California needs its own motor vehicle program to meet compelling and extraordinary conditions, and not whether any given standard is necessary to meet such conditions. Opponents of the waiver in that proceeding argued that EPA was to consider whether California needed these PM standards to meet compelling and extraordinary conditions related to PM air pollution.

The Administrator agreed with California that it was appropriate to look at the program as a whole in determining compliance with section 209(b)(1)(B). One justification of the Administrator was that many of the concerns with regard to having separate state standards were based on the manufacturers' worries about having to meet more than one motor vehicle program in the country, but that once a separate California program was permitted, it should not be a greater administrative hindrance to have to meet further standards in California. The Administrator also justified this decision by noting that the language of the statute referred to "such state standards," which referred back to the use of the same phrase in the criterion looking at the protectiveness of the

---

72 49 FR 18887 (May 3, 1984).

standards in the aggregate. He also noted that the phrase referred to standards in the plural, not individual standards. He considered this interpretation to be consistent with the ability of California to have some standards that are less stringent than the federal standards, as long as, per section 209(b)(1)(A), in the aggregate its standards were at least as protective as the federal standards.

The Administrator further stated that in the legislative history of section 209, the phrase “compelling and extraordinary circumstances” refers to “certain general circumstances, unique to California, primarily responsible for causing its air pollution problem,” like the numerous thermal inversions caused by its local geography and wind patterns. The Administrator also noted that Congress recognized “the presence and growth of California’s vehicle population, whose emissions were thought to be responsible for ninety percent of the air pollution in certain parts of California.”<sup>73</sup> EPA reasoned that the term compelling and extraordinary conditions “do not refer to the levels of pollution directly.” Instead, the term refers primarily to the factors that tend to produce higher levels of pollution – “geographical and climatic conditions (like thermal inversions) that, when combined with large numbers and high concentrations of automobiles, create serious air pollution problems.”<sup>74</sup>

The Administrator summarized that under this interpretation the question to be addressed in the second criterion is whether these “fundamental conditions” (i.e. the geographical and climate conditions and large motor vehicle population) that cause air pollution continued to exist, not whether the air pollution levels for PM were compelling and extraordinary, or the extent to which these specific PM standards will address the PM air pollution problem.<sup>75</sup>

However in the GHG waiver denial, EPA limited this interpretation to California’s motor vehicle standards that are designed to address local or regional air pollution problems. EPA determined that the traditional interpretation was not appropriate for standards designed to

---

<sup>73</sup> *Id.* at 18890.

<sup>74</sup> 73 FR 12156, 12159-60.

<sup>75</sup> 73 FR at 12159-60.



address a global air pollution problem and its effects.<sup>76</sup>

With respect to a global air pollution problem like elevated concentrations of GHGs, EPA's GHG waiver denial found that the text of section 209(b)(1)(B) was ambiguous and did not limit EPA to this prior interpretation. In addition, EPA noted that the legislative history supported a decision to "examine the second criterion specifically in the context of global climate change." The legislative history:

[I]ndicates that Congress was moved to allow waivers of preemption for California motor vehicle standards based on the particular effects of local conditions in California on the air pollution problems in California. Congress discussed "the unique problems faced in California as a result of its climate and topography." H.R. Rep. No. 728, 90<sup>th</sup> Cong. 1<sup>st</sup> Sess., at 21 (1967). See also Statement of Cong. Holifield (CA), 113 Cong. Rec. 30942-43 (1967). Congress also noted the large effect of local vehicle pollution on such local problems. See, e.g., Statement of Cong. Bell (CA) 113 Cong. Rec. 30946. In particular, Congress focused on California's smog problem, which is especially affected by local conditions and local pollution. See Statement of Cong. Smith (CA) 113 Cong. Rec. 30940-41 (1967); Statement of Cong. Holifield (CA), *id.* at 30942. See also, *MEMA I*, 627 F. 2d 1095, 1109 (D.C. Cir., 1979) (noting the discussion of California's "peculiar local conditions" in the legislative history). Congress did not justify this provision based on pollution problems of a more national or global nature in justifying this provision.<sup>77</sup>

Relying on this, and without any further significant discussion of either congressional intent or how this new approach properly furthered the goals of section 209(b), EPA determined that it was appropriate to:

---

<sup>76</sup> EPA recently reaffirmed that the traditional interpretation still applied for motor vehicle standards designed to address air pollution problems that are local or regional in nature. 71 FR 78190, 78192 (December 28, 2008); *see also* 71 FR 78190 and Decision Document for Waiver of Federal Preemption for California Zero Emission Vehicle Standards, at 34.

<sup>77</sup> 73 FR at 12161.

[R]eview California's GHG standards separately from the remainder of its motor vehicle emission control program for purposes of section 209(b)(1)(B). In this context it is appropriate to give meaning to this criterion by looking at whether the emissions from California motor vehicles, as well as the local climate and topography in California, are the fundamental causal factors for the air pollution problem – elevated concentrations of greenhouse gases - apart from the other parts of California's motor vehicle program, which are intended to remediate different air pollution concerns.

EPA then applied this interpretation to the GHG standards at issue in that waiver proceeding. Having limited the meaning of this provision to situations where the air pollution problem was local or regional in nature, EPA found that California's GHG standards do not meet this criterion. EPA also found that the elevated concentrations of GHGs in California are similar to concentrations elsewhere in the world, and that local conditions in California such as the local topography and climate and the number of motor vehicles in California are not the determinant factors causing the elevated GHG concentrations found in California and elsewhere. Thus, EPA found that California did not need its GHG standards to meet compelling and extraordinary conditions, and denied the GHG waiver.

EPA also considered an alternative interpretation, where EPA would consider “the effects in California of this global air pollution problem in California in comparison to the rest of the country, again addressing the GHG standards separately from the rest of California's motor vehicle program.” Under this alternative interpretation, EPA considered whether the impacts of global climate change in California were significant enough and different enough from the rest of the country such that California could be considered to need its GHG standards to meet compelling and extraordinary conditions. EPA determined that the waiver should be denied

under this alternative interpretation as well.

## 2. EPA's July 9, 2009 GHG Waiver

In EPA's July 9, 2009 GHG waiver, the Agency determined that the better approach was to review California's need for its new motor vehicle emissions program as a whole to meet compelling and extraordinary conditions, and not to apply this criterion to specific standards, or to limit it to standards designed to address only local or regional air pollution problems. EPA reasoned that the traditional approach to interpreting this provision was the best approach for considering a waiver directed to GHG emission standards, as well as a waiver for standards directed to address local or regional air pollution problems.<sup>78</sup> Therefore, EPA rejected the interpretation that was applied in the March 6, 2008 waiver denial and stated it should no longer be followed.

EPA reasoned that the traditional interpretation was the most straightforward reading of the text and legislative history of section 209(b). Congress decided in 1977 to allow California to promulgate individual standards that are not as stringent as comparable federal standards, as long as the standards are "in the aggregate, at least as protective of public health and welfare as applicable federal standards." This decision by Congress requires EPA to allow California to

---

<sup>78</sup> The traditional interpretation of section 209(b)(1)(B) is certainly not "unambiguously precluded" by the language of the statute. See *Entergy Corp. v. Riverkeeper, Inc.*, 129 S.Ct. 1498 (2009) ("That view governs if it is a reasonable interpretation of the statute – not necessarily the only possible interpretation, nor even the interpretation deemed most reasonable by the courts. *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 843-844 (1984).") ("It seems to us, therefore, that the phrase "best available," even with the added specification "for minimizing adverse environmental impact," does not unambiguously preclude cost-benefit analysis."). *Carrow v. Merit Systems Protection Board*, 564 F.3d 1359 (Fed. Cir. 2009) ("[W]e are obligated to give controlling effect to [agency's] interpretation if it is reasonable and is not contrary to the unambiguously expressed intent of Congress", citing *Entergy Corp.*).

promulgate individual standards that, in and of themselves, might not be considered needed to meet compelling and extraordinary circumstances, but are part of California's overall approach to reducing vehicle emissions to address air pollution problems.

Further, we noted that EPA is to determine whether California's protectiveness determination is arbitrary and capricious under section 209(b)(1)(A), and whether California does not need "such State standards" to meet compelling and extraordinary conditions under section 209(b)(1)(B). The natural reading of these provisions led EPA to consider the same group of standards that California considered in making its protectiveness determination. While the words "in the aggregate" are not specifically mentioned in section 209(b)(1)(B), EPA explained that it does refer to the need for "such State standards," rather than "each State standard" or otherwise indicate a standard-by-standard analysis.

We also noted that EPA's GHG waiver denial had determined that this provision was appropriately interpreted to consider California's standards as a group for standards designed to address local or regional air pollution problems, but should be interpreted in the opposite fashion for standards designed to address global air pollution problems. The text of the provision, however, draws no such distinction, and provides no indication other than Congress intended a single interpretation for this provision, not one that varied based on the kind of air pollution problem at issue.

EPA also explained that the GHG waiver denial had considered the legislative history, and determined that Congress was motivated by concern over local conditions in California that led to local or regional air pollution problems, and from this EPA determined that Congress

intended to allow California to address these kinds of local or regional air pollution problems, but no others. However, upon a reexamination of the legislative history EPA found that the determination noted above ignores the main thrust of the text and legislative history of section 209(b), and improperly reads too much into an absence of discussion of global air pollution problems in the legislative history. The structure of section 209, both as adopted in 1967 and as amended in 1977, is notable in its focus on limiting the ability of EPA to deny a waiver, and thereby preserves discretion for California to construct its motor vehicle program as it deems appropriate to protect the health and welfare of its citizens. The legislative history indicates Congress quite intentionally restricted and limited EPA's review of California's standards, and its express legislative intent was to "provide the broadest possible discretion [to California] in selecting the best means to protect the health of its citizens and the public welfare."<sup>79</sup> The D.C. Circuit recognized that "[t]he history of the congressional consideration of the California waiver provision, from its original enactment up through 1977, indicates that Congress intended the State to continue and expand its pioneering efforts at adopting and enforcing motor vehicle emission standards different from and in large measure more advanced than the corresponding federal program. In short, to act as a kind of laboratory for innovation. ... For a court [to limit California's authority] despite the absence of such an indication would only frustrate the congressional intent."<sup>80</sup>

EPA also determined that it was fully consistent with the expressed intention of Congress to interpret section 209(b)(1)(B) the same way both for standards designed to address local and

---

79 H.R. Rep. No. 294, 95<sup>th</sup> Cong., 1<sup>st</sup> Sess. 301-302 (1977). See *MEMA I*, 627 F. 2d at 1110 -11.  
80 *MEMA I*, 627 F. 2d at 1111.

regional air pollution problems, and standards designed to address global air pollution problems. Congress intended to provide California the broadest possible discretion to develop its motor vehicle emissions program. Neither the text nor the legislative history of section 209(b) indicates that Congress intended to limit this broad discretion to a certain kind of air pollution problem, or to take away all discretion with respect to global air pollution problems.<sup>81</sup> In addition, EPA reasoned that applying the traditional interpretation to GHG standards does not change the basic nature of the compromise established by Congress – California could act as the laboratory for the nation with respect to motor vehicle emission control, and manufacturers would continue to face just two sets of emissions standards – California's and EPA's.

EPA further explained that this interpretation was consistent with Congressional purpose, as compared to the interpretation adopted in the GHG waiver denial relied on the discussion in the legislative history of local conditions in California leading to air pollution problems like ozone. While this was properly read to support the view that section 209(b) should be interpreted to address California's need for a motor vehicle program as a whole, the GHG waiver denial went further and inferred that by discussing such local conditions, Congress also intended to limit California's discretion to only these kinds of local or regional air pollution problems. The GHG waiver denial pointed to no particular language in the legislative history or the text of section 209(b) indicating such, instead, congressional intent to limit California's discretion was inferred from the discussion of local conditions. However, basing a limitation on such an

---

<sup>81</sup> This broad interpretation of section 209(b) is similar to the broad reading the Court provided to section 302(g) of the Clean Air Act when it held that the term "air pollutant" included greenhouse gases, rejecting among other things the argument that Congress limited the term to apply only to certain kinds of air pollution. *Massachusetts v. EPA*, 549 US 497, 532 (2007) (footnote 26).

inference is not appropriate given the express indication that Congress intended to provide California the “broadest possible discretion” in selecting the best means to protect the health of its citizens and the public welfare.

Additionally, EPA explained that the text of section 209(b) and the legislative history, when viewed as a whole, led to the conclusion that the interpretation adopted in the GHG waiver denial should be rejected. The better way to interpret this provision is to apply the traditional interpretation to the evaluation of California's GHG standards for motor vehicles. If California needs a separate motor vehicle program to address the kinds of compelling and extraordinary conditions discussed in the traditional interpretation, then Congress intended that California could have such a program. Congress also intentionally provided California the broadest possible discretion in adopting the kind of standards in its motor vehicle program that California determines are appropriate to address air pollution problems that exist in California, whether or not those problems are local or regional in nature, and to protect the health and welfare of its citizens. The better interpretation of the text and legislative history of this provision is that Congress did not intend this criterion to limit California’s discretion to a certain category of air pollution problems, to the exclusion of others. In this context it is important to note that air pollution problems, including local or regional air pollution problems, do not occur in isolation. Ozone and PM air pollution, traditionally seen as local or regional air pollution problems, occur in a context that to some extent can involve long range transport of this air pollution or its precursors. This long-range or global aspect of ozone and PM can have an impact on local or regional levels, as part of the background in which the local or regional air pollution problem

occurs.

EPA further stated that this approach does not make section 209(b)(1)(B) a nullity, as some had suggested. EPA must still determine whether California does not need its motor vehicle program to meet the compelling and extraordinary conditions discussed in the legislative history. If that is the case, then a waiver would be denied on those grounds, but that was not the case at that point. EPA observed that conditions in California may one day improve such that it no longer had the need for a separate motor vehicle program and that the statute contemplates that such improvement is possible. In addition, we noted that the opponents of a waiver always have the ability to raise their legal, policy, and other concerns in the State administrative process, or through judicial review in State courts. We concluded, however, that Congress provided EPA a much more limited role under section 209(b) in considering objections raised by opponents of a waiver.

### 3. Response to Comments Received

CARB states in its Waiver Support Document that the relevant inquiry under section 209(b)(1)(B) is whether California needs its own motor vehicle pollution control program to meet compelling and extraordinary conditions and not whether any particular standard is needed to meet such conditions. CARB notes that EPA has consistently determined that the phrase “compelling and extraordinary conditions” refers to:

... Certain general circumstances, unique to California, primarily responsible for causing its air pollution [including] ... geographical and climate factors [as well as] ... the presence and growth of California’s vehicle population, whose emissions were thought to be responsible for ninety percent of the air pollution problem in certain parts of California.



CARB also submits that the 2012 ZEV and LEV amendments (the ACC program) meet the same compelling and extraordinary conditions justifying previous waivers (e.g., the South Coast and San Joaquin Air basins continue to experience some of the worst air quality in the nation and that California has an ongoing need for dramatic emission reductions generally and from passenger cars specifically). CARB also submits that as in 1967, EPA’s previous waivers have noted that California continued to have geographic and climatic conditions that, when combined with the large numbers and high concentrations of automobiles, created a serious air pollution problem.

EPA received only one comment requesting a denial of the waiver for the GHG and ZEV standards based on the grounds of section 209(b)(1)(B) – that “such State does not need such State standards to meet compelling and extraordinary conditions.” This commenter raised specific objections to both the GHG and ZEV elements of CARB’s ACC program but none of them addressed whether California’s geographic, climactic and air quality conditions remain the same as they were under prior waiver determinations.<sup>82</sup>

#### 4. CARB’s GHG Emission Standards

With regard to CARB’s GHG standards, the Dealers state there is no need and no discernible environmental benefit from such standards because of EPA’s GHG regulations for motor vehicles that CARB has agreed to accept as compliance for its own program. According to the commenter, this amounts to a legal admission that CARB does not need its own GHG standards. In addition, because manufacturers are already under a legal obligation to comply

---

<sup>82</sup> NADA at 7-9, 12-14.

with the NHTSA/EPA 2017-2025 GHG standards there is no environmental benefit associated with separate CARB GHG standards. This commenter cited 1967 legislative history as support that Congress decided that federal preemption of new vehicle emission standards would be available for California but only where California promulgated standards necessary to address “the unique problems facing the state.”<sup>83</sup> Had Congress intended to give California discretion to adopt whatever standards it liked, without any consideration as to whether these standard are ‘needed,’ Congress would have omitted Sec. 209(b)(1)(B) altogether.” This commenter also suggests that the “alternative arguments” in the 2009 GHG waiver decision, wherein California’s need for its GHG standards standing alone was evaluated, should also be applied here. As such, this commenter suggests that since CARB does not intend to rely on its own regulations to meet environmental goals there can be no “rational connection” between the CARB’s regulation and the state’s air quality issues. Finally, the commenter notes that CARB’s statement that a waiver “will remain an important backstop in the event the national program is weakened or terminated” is an identified “political need” outside the scope of Section 209.

CARB, in response to NADA’s comments referenced above, states that while there may not be binding precedent that requires EPA to treat California’s program as a whole in reviewing the need for specific standards, it previously has demonstrated that EPA’s longstanding administrative practice to review the need for separate standard standards in the context of the ongoing compelling and extraordinary conditions justifying California’s motor vehicle program remains sound.

CARB also notes that its commitment to accept compliance with the federal GHG

---

<sup>83</sup> H.R. Rep. No. 90-728 (1967), at 22.

emission standards is no different from the numerous times that EPA has followed California's lead – blazing a new trail as a laboratory for innovation – by catching up to or harmonizing with California's standards. In addition, rather than viewing CARB's actions as impermissible political backstop, CARB maintains that its actions are simply furthering the Congressional design of Section 209(b): to ensure that California can protect public health and welfare by ensuring its ability to separately implement and enforce necessary emission reductions through its own regulatory mechanisms. Therefore CARB can continue to set standards that in the first instance are more stringent, then may become as stringent and subsequently – under the NADA hypothetical – become more stringent should EPA lessen the stringency of the federal GHG emission standards. In addition, CARB points to NADA's concession by acknowledging that CARB's standards must be as or more stringent – i.e., as protective as – the federal standards.

As discussed above, EPA believes that the better interpretation of the section 209(b)(1)(B) criterion is the traditional approach of evaluating California's need for a separate motor vehicle emission program to meet compelling and extraordinary conditions. Applying this approach with the reasoning noted above, with due deference to California, I cannot deny the waiver.

CARB has repeatedly demonstrated the need for its motor vehicle program to address compelling and extraordinary conditions in California. As discussed above, the term compelling and extraordinary conditions “does not refer to the levels of pollution directly.” Instead, the term refers primarily to the factors that tend to produce higher levels of pollution – geographical and climatic conditions (like thermal inversions) that, when combined with large numbers and high

concentrations of automobiles, create serious air pollution problems. California still faces such conditions. For example, as stated in CARB's waiver request and additional written comment, California and particularly the South Coast and San Joaquin Valley Air Basins continue to experience some of the worst air quality in the nation and continue to be in non-attainment with national ambient air quality standards (NAAQS) for PM<sup>2.5</sup> and ozone.<sup>84</sup> In its recent announcement of new PM<sub>2.5</sub> ambient air quality standards, EPA projected that only seven of approximately 3,000 counties in the country may require state or local action to reduce fine particle pollution in order to meet the new standards by 2020. All seven counties are in California.

Further, EPA has not received any adverse comments suggesting that California no longer needs a separate motor vehicle emissions program to address the various conditions that lead to serious and unique air pollution problems in California.

Based on the record, I am unable to identify any change in circumstances or any evidence to suggest that the conditions that Congress identified as giving rise to serious air quality problems in California no longer exist. Therefore, using the traditional approach of reviewing the need for a separate California program to meet compelling and extraordinary conditions, I cannot deny the ACC waiver request (including the GHG and ZEV components, along with LEV III criteria pollutants) based on this criterion.

To the extent that it is appropriate to examine the need for CARB's GHG standards to meet compelling and extraordinary conditions, as EPA discussed at length in its 2009 GHG waiver decision, California does have compelling and extraordinary conditions directly related to

---

<sup>84</sup> 76 FR 40652, 40654 (July 11, 2011).

regulations of GHG. EPA's prior GHG waiver contained extensive discussion regarding the impacts of climate change in California.<sup>85</sup> In addition, CARB has submitted additional evidence in comment on the ACC waiver request that evidences sufficiently different circumstances in California.<sup>86</sup> CARB notes that "Record-setting fires, deadly heat waves, destructive storm surges, loss of winter snowpack—California has experienced all of these in the past decade and will experience more in the coming decades. California's climate--much of what makes the state so unique and prosperous--is already changing, and those changes will only accelerate and intensify in the future. Extreme weather will be increasingly common as a result of climate change. In California, extreme events such as floods, heat waves, droughts and severe storms will increase in frequency and intensity. Many of these extreme events have the potential to dramatically affect human health and well-being, critical infrastructure and natural systems." <sup>87</sup> CARB provides a summary report on the third assessment from the California Climate Change Center (2012)<sup>88</sup> which describes dramatic sea level rises and increases in temperatures. The Commenter does not take issue with that analysis, but instead relies on the existence of the federal GHG standards and the "deemed to comply" language to claim that there is no need for CARB's GHG standards. Separate from EPA's stated interpretation and determinations noted above, EPA believes that the commenter does not appropriately appreciate the role that Congress envisioned California to play as an innovative laboratory that may set standards that EPA may ultimately harmonize with or that California or EPA may otherwise accept compliance with the

---

<sup>85</sup> 74 FR 32744, 32764-7265.

<sup>86</sup> EPA-HQ-OAR-2012-0562-0371.

<sup>87</sup> *Id.*

<sup>88</sup> Our Changing Climate 2012 Vulnerability & Adaptation to the Increasing Risks from Climate Change in California. Publication # CEC-500-2012-007. Posted: July 31, 2012; available at [http://www.climatechange.ca.gov/adaptation/third\\_assessment/](http://www.climatechange.ca.gov/adaptation/third_assessment/)

others emission program as compliance with their own. EPA's longstanding interpretation of section 209(b)(1)(B) is that EPA does not look at whether the specific standards at issue are needed to meet compelling and extraordinary conditions related to that air pollutant. As explained above, EPA reviewed this issue in some detail in both EPA's 2008 GHG waiver denial and subsequent 2009 GHG waiver decision and EPA continues to believe that our traditional interpretation is appropriate. The structure of section 209, both as adopted in 1967 and as amended in 1977, is notable in its focus on limiting the ability of EPA to deny a waiver, and thereby preserves discretion for California to construct its motor vehicle program as it deems appropriate to protect the health and welfare of its citizens.<sup>89</sup> EPA has previously considered NADA's argument that CARB no longer has a need for its GHG emission standards once CARB adopts a "deemed to comply" provision. In EPA's within the scope decision in 2011, where EPA considered CARB's previous "deemed to comply" provision applicable to the 2012 through 2016 MYs, EPA stated:

NADA's comments do not indicate that, as a result of the amendments, California no longer needs a separate motor vehicle emissions program to address compelling and extraordinary conditions in California, or provide any indication that EPA's prior determination on this issue is undermined in any way. Therefore, its comments do not show that California's amendments raise any new issues relevant to EPA's initial waiver decision.

Moreover, although NADA's comments reference the words of the section 209(b)(1)(B), "need \* \* \* to meet compelling and extraordinary circumstances" criterion, they do not appear to be directed towards the geographical or climatological conditions that are being referred to by the words "compelling and extraordinary circumstances." Instead, NADA's comments appear to be directed at the stringency of the greenhouse gas standards.

---

<sup>89</sup> See H.R. Rep. No. 294, 95<sup>th</sup> Cong., 1<sup>st</sup> Sess. 301-302 (1977).

The stringency of California's standards is at issue in section 209(b)(1)(A), where Congress addressed the comparison of California standards to federal standards, but it is not an issue under section 209(b)(1)(B). As noted in EPA's underlying waiver decision, section 209(b)(1)(A) calls for a review of California standards "in the aggregate," and EPA can only deny a waiver if it finds that California was arbitrary and capricious in its finding that "its standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards." EPA notes that the language of section 209(b)(1)(A) clearly indicates Congress's determination that EPA review the effect of stringency on the protectiveness of California's standards "in the aggregate," and that EPA cannot deny a waiver on the grounds of protectiveness if California standards are at least equally protective as Federal standards. "Redundancy" is not the criterion; it is whether California's standards are, in the aggregate, at least as protective as applicable Federal standards. Furthermore, NADA does not address California's standards "in the aggregate" and, as noted above, does not provide any evidence to suggest, even with regard to California's greenhouse gas standards, that California was arbitrary and capricious in its finding that its standards are at least as protective as comparable federal standards. The stringency issue raised by NADA is not relevant under section 209(b)(1)(B), and it would be inconsistent with the intent of Congress to deny a waiver or a within-the-scope determination based on section 209(b)(1)(B) for reasons Congress clearly addressed and clearly determined should not be the basis for a denial under section 209(b)(1)(A). NADA's comments, therefore, do not raise any new issues regarding our preexisting waiver for California greenhouse gas emission standards.<sup>90</sup>

EPA believes this interpretation of section 209(b)(1)(B) continues to be appropriate and therefore finds that CARB's GHG emission standards cannot be denied a waiver based on NADA's argument that there is no need for such standards given the existence of EPA GHG emission standards.

## 5. CARB's ZEV Emission Standards

---

<sup>90</sup> 76 FR 34693, 34697-34698 (June 14, 2011).

The Dealers also requested that EPA deny a waiver of CARB's ZEV standards for MY 2018 and beyond because they were not necessary to meet compelling and extraordinary circumstances, under the section 209(b)(1)(B) criterion.<sup>91</sup> According to the commenter, the "compelling and extraordinary conditions" in California today are nothing like they were when Congress first enacted section 209. In addition, the commenter notes that CARB claims no criteria emissions benefit from the ZEV standards in terms of vehicle TTW emissions and subsequently notes several problems with CARB's upstream WTW emissions analysis and projected benefits. For example, the commenter disputes CARB's assumptions that reductions of fuel production by refineries will result from reductions in fuel consumption by the vehicle fleet in California. According to the commenter, refineries in California could simply shift fuel production to address either off-shore or out-of state needs. The commenter further states that CARB has not and cannot show that its ZEV standards will achieve any reductions in criteria pollutants. With respect to the relationship between the GHG and ZEV programs, the commenter also states that the ZEV standards do not provide any additional GHG emission benefits beyond the underlying GHG standards and the ZEV standards are therefore not necessary to meet any potential compelling and extraordinary conditions associated with GHG emissions from new motor vehicles. In addition, the commenter suggests that because CARB is providing a variety of compliance flexibilities, including over compliance with GHG standards producing ZEV credits and other alternative compliance path options, confirms that the underlying ZEV mandates are not "necessary."

CARB notes in its written response that to the extent commenters question California's need

---

<sup>91</sup> NADA at 13.



for additional criteria pollutant reductions from its new motor vehicle fleet, there remains no question that such reductions are essential to meet federal health-based ambient air quality standards. CARB notes that California and particularly the South Coast and San Joaquin Valley Air Basins continue to experience some of the worst air quality in the nation and continue to be in non-attainment with national ambient air quality standards (NAAQS) for PM<sub>2.5</sub> and ozone.<sup>92</sup> California's unique geographical and climatic conditions, and the tremendous growth in its on- and off-road vehicle population, which moved Congress to authorize the state to establish separate on-road motor vehicle standards in 1967 and off-road engine standards in 1990, still exist today.<sup>93</sup> In addition, CARB provides extensive evidence of its current and serious air quality problems and the increasingly stringent health-based air quality standards and federally required state planning efforts to meet those standards firmly in order to establish the need for the additional emission reductions from its motor vehicle emissions program.<sup>94</sup>

As stated above, EPA believes that the better interpretation of the section 209(b)(1)(B) criterion is the traditional approach of evaluating California's need for a separate motor vehicle emission program to meet compelling and extraordinary conditions. The issue of whether any particular standard provides comparable emission reductions is not a relevant criterion under section 209(b)(1)(B). Applying this approach with the reasoning noted above, with due deference to California, I cannot deny the waiver.

As discussed in their written comments, CARB has repeatedly demonstrated the need for its motor vehicle program to address compelling and extraordinary conditions in California. As

---

92 76 FR 40652, 40654 (July 11, 2011). CARB waiver request at 17-18.

93 74 FR 32744, 32762 (July 8, 2009); 76 FR 77515, 77518 (December 13, 2011).

94 EPA-HQ-OAR-2012-0562-0371.

discussed above, the term compelling and extraordinary conditions “does not refer to the levels of pollution directly. Instead, the term refers primarily to the factors that tend to produce higher levels of pollution – geographical and climatic conditions (like thermal inversions) that, when combined with large numbers and high concentrations of automobiles, create serious air pollution problems. California still faces such conditions. For example, California and particularly the South Coast and San Joaquin Valley Air Basins continue to experience some of the worst air quality in the nation and continue to be in non-attainment with national ambient air quality standards (NAAQS) for PM<sub>2.5</sub> and ozone.<sup>95</sup> In addition, EPA believes, and the record does not otherwise indicate, the underlying geographical and climatic conditions continue to exist in California and continue to give rise to serious air quality problems.

EPA has not received any adverse comments suggesting that California no longer needs a separate motor vehicle emissions program to address the various conditions that lead to serious and unique air pollution problems in California.

Based on the record, I am unable to identify any change in circumstances or any evidence to suggest that the conditions that Congress identified as giving rise to serious air quality problems in California no longer exist. Therefore, using the traditional approach of reviewing the need for a separate California program to meet compelling and extraordinary conditions, I cannot deny the ACC waiver request (including the GHG and ZEV components, along with LEV III criteria pollutants) based on this criterion.

As CARB notes in its waiver request, the goal of the CARB Board in directing CARB staff to redesign the ZEV regulation was to focus primarily on zero emission drive – that is BEV,

---

<sup>95</sup> 76 Fed.Reg. 40652, 40654 (July 11, 2011).

FCV, and PHEVs in order to move advanced, low GHG vehicles from demonstration phase to commercialization. CARB also analyzed pathways to meeting California's long term 2050 GHG reduction targets in the light-duty vehicle sector and determined that ZEVs would need to reach nearly 100 percent of new vehicle sales between 2040 and 2050. CARB also notes that the "critical nature of the LEV III regulation is also highlighted in the recent effort to take a coordinated look at strategies to meet California's multiple air quality and climate goals well into the future. This coordinated planning effort, *Vision for Clean Air: A Framework for Air Quality and Climate Planning (Vision for Clean Air)*<sup>96</sup> demonstrates the magnitude of the technology and energy transformation needed from the transportation sector and associated energy production to meet federal standards and the goals set forth by California's climate change requirements. In addition to considering the level of change needed to implement the current SIP and reduce GHG emissions by 80 percent below 1990 levels by 2050, the 2032 attainment date for the 0.075 ppm standard set in 2008 was used as an interim target. Adopted or pending rules, such as the LEV III regulation, were considered essential as baseline reductions assumed for the future, yet California identified still more transformative changes to achieve the 2032 and 2050 targets. The *Vision for Clean Air* effort illustrates that in addition to the cleanup of passenger vehicles (at issue here) as soon as possible as required in the LEV III regulation, transition to zero- and near-zero emission technologies in all on- and off-road engine categories is necessary to achieve the coordinated goals.

---

96 EPA-HQ-OAR-2012-0562-0371 at 5-6, citing *Vision for Clean Air: A Framework for Air Quality and Climate Planning*, June 27, 2012,

Therefore, EPA believes that CARB's 2018 and later MY ZEV standards represent a reasonable pathway to reach these longer term goals. Under EPA's traditional practice of affording CARB the broadest discretion possible, and deferring to CARB on its policy choices, we believe there is a rational connection between California ZEV standards and its attainment of long term air quality goals. Whether or not the ZEV standards achieve additional reductions by themselves above and beyond the LEV III GHG and criteria pollutant standards, the LEV III program overall does achieve such reductions, and EPA defers to California's policy choice of the appropriate technology path to pursue to achieve these emissions reductions. The ZEV standards are a reasonable pathway to reach the LEV III goals, in the context of California's longer term goals.

#### 6. CARB's PM Standards

EPA received comments suggesting that the PM standards promulgated within California's LEV VIII regulation were infeasible. The Manufacturers in particular commented that the technological feasibility of the one milligram per mile PM standard, that commences its phase in starting with the 2025 MY, has not been demonstrated (this issue is discussed below in the Section VI). The Manufacturers appear to raise issue with whether additional PM emission reductions from light-duty vehicles are needed since they represent so small a fraction of the PM inventory in California. CARB's supplemental comments assert that "while PM emission from LDVs are not a major contributor to the inventory, they are a significant contributor to urban pollution and human exposure, particularly near heavily travelled roadways, many of which are located in major urban centers in areas classified as non-attainment for health based PM ambient

air quality standards.” CARB also notes that the exact amount of pollution reduced through any given emission standard and the cost-effectiveness of any particular California standards are not waiver criteria and therefore not relevant to EPA’s determination.

EPA does not believe that it is necessarily the Manufacturers’ contention that the PM standards are not needed to meet compelling and extraordinary conditions. Nevertheless, EPA believes it appropriate to note, once again, that the compelling and extraordinary conditions Congress identified as giving rise to serious air quality problems continue to give rise to the need for a separate California new motor vehicle emissions program. EPA believes this includes CARB’s serious PM air quality problems. EPA agrees that the PM standards will result in reductions in PM emissions, however small. It is not appropriate for EPA to second-guess CARB’s policy choices, including how best to address their air quality concerns.

#### 7. Section 209(b)(1)(B) Conclusion

With respect to the need for California’s state standards to meet compelling and extraordinary conditions, I continue to apply the traditional interpretation of the waiver provision. As stated in the GHG waiver decision,<sup>97</sup> the best way to interpret this provision is to determine whether California continues to have compelling and extraordinary conditions giving rise to a need for its own new motor vehicle emission program. Congress did not use this criterion to limit California’s discretion to a certain category of air pollution problems, nor does EPA believe this criterion limits California’s discretion to adopt or retain emission standards that are similar to EPA’s standards. In addition, it is inappropriate for EPA to second guess CARB’s

---

<sup>97</sup> 74 FR 32766. EPA incorporates this prior GHG waiver decision, and associated reasoning and interpretations, into today’s waiver decision.

policy choices and objectives in adopting ZEV standards designed to achieve long term emission benefits as well as projected to reasonably achieve some reduction in criteria pollutant emissions.

Under this interpretation and application of this criterion, EPA cannot find that the opponents of the waiver have demonstrated that California does not need its state standards to meet compelling and extraordinary conditions. The opponents of the waiver have not adequately demonstrated that California no longer has a need for its motor vehicle emission program. Therefore, I determine that I cannot deny CARB's ACC waiver request under section 209(b)(1)(B).

*C. Are the California ACC Standards Consistent with Section 202(a) of the Clean Air Act?*

EPA has reviewed the information submitted to the record of this proceeding to determine whether the parties opposing, or seeking a deferral of, this waiver request have met their burden to demonstrate that the ACC standards are not consistent with section 202(a). In its initial Waiver Request, CARB submitted information and argument that the ACC standards are consistent with section 202(a). CARB notes that in developing the LEV III requirements it considered several factors (e.g., technical feasibility, lead time available to meet the requirements, and the cost of compliance and the technical and resource challenges manufacturers face in complying with the requirement to simultaneously reduce criteria and GHG emissions). CARB notes that that criteria emissions elements of LEV III occur over an 11-year period (2015 through 2025) while the GHG emission element is implemented over a 9-year period from 2017 through 2025. CARB sets forth its belief that both the stringency and implementation schedules for its PM standards are technologically feasible within the available

lead time. With regard to LEV III GHG regulations, CARB noted that California coordinated with the EPA and NHTSA on technical and economic areas, and CARB has moved in parallel with the federal rulemaking in terms of stringency of the standards and lead time for compliance. CARB maintains that the standards and lead time are technologically feasible “even before CARB proposes to amend its LEV III GHG regulations to allow National Program compliance to serve as compliance in California. It will be undeniably true should California adopt its “deemed to comply” rule as planned.”<sup>98</sup> With regard to the ZEV amendments, CARB noted the lack of objections from the regulated parties during CARB’s rulemaking and the regulated parties’ announcements of their planned ability to comply.

The Manufacturers have submitted information and argument that their members see no way to measure and meet the 1 mg/mile PM standard beginning in 2025 (as part of the LEV III standards) and ask EPA to withhold issuing a waiver for this standard at this time. The Manufacturers have commented that they do not oppose California’s GHG emission standards for the 2017 through 2025 MYs but suggests that EPA should grant California’s waiver request after CARB has finalized its regulatory amendments to allow for a national compliance option.<sup>99</sup> Finally, while the Manufacturers agree that CARB’s ZEV amendments, as they affect 2017 and earlier MYs, are within the scope of existing waivers, they are opposed to granting the waiver for the ZEV program past the 2017 MY based on argument that those standards will not be feasible

---

98 At the time of CARB’s waiver request EPA’s GHG emission rule had not yet been finalized. Subsequent to EPA’s final rule CARB has adopted the deemed to comply and has provided the regulation for EPA’s consideration. *See also* CARB Resolution 12-11 at 20.

99 The Manufacturers note that both the federal and the California GHG emission standards provide for a comprehensive mid-term evaluation of the MYs 2022-2025. Therefore, the Manufacturers clearly state that “Any amendments to California’s GHG emission standards made as a result of the mid-term evaluation will require analysis to determine whether the amendments fall within the scope of this waiver, or, if not, whether they qualify for a separate waiver under Section 209(b) of the Clean Air Act.

either in California or in the individual Section 177 States given the status of the infrastructure and the level of consumer demand for ZEVs.

EPA also received comment from the Dealers suggesting that EPA should not grant California a waiver for its GHG emission standards past MY 2021 since the technical capabilities after that time are uncertain. In addition, like the Manufacturers, NADA does not oppose CARB's ZEV amendments through the 2017 MY. However, NADA believes CARB's ZEV amendments, as they affect 2018 and later MYs, raise serious technological feasibility concerns including their economic feasibility (including their marketability when compared to non-ZEV vehicles). EPA's analysis of the consistency of the CARB standards with section 202(a) of the Act follows.

#### 1. Historical Approach

Under section 209(b)(1)(C), EPA must deny California's waiver request if the Agency finds that California standards and accompanying enforcement procedures are not consistent with section 202(a) of the Act. The scope of EPA's review under this criterion is narrow. EPA has previously stated that the determination is limited to whether those opposed to the waiver have met their burden of establishing that California's standards are technologically infeasible, or that California's test procedures impose requirements inconsistent with the federal test procedure.<sup>100</sup> Previous waivers of federal preemption have stated that California's standards are not consistent with section 202(a) if there is inadequate lead time to permit the development of technology necessary to meet those requirements, giving appropriate consideration to the cost of

---

<sup>100</sup> *MEMA I*, 627 F.2d at 1126.



compliance within that time.<sup>101</sup> California's accompanying enforcement procedures would be inconsistent with section 202(a) if the federal and California test procedures conflict, i.e., if manufacturers would be unable to meet both the California and federal test requirements with the same test vehicle.<sup>102</sup>

EPA does not believe that there is any reason to review these criteria any differently for EPA's evaluation of California's ACC program request. There is nothing inherently different about how ACC control technologies should be reviewed when making a determination about technological feasibility or consistency of test procedures.

In the ACC waiver proceeding, opponents of the waiver have presented evidence for EPA's consideration which they believe will require EPA to make the finding of inconsistency with section 202(a), and therefore require EPA to deny or defer granting all or parts of the waiver request (*e.g.*, a deferral on the 2025 and later MY phase-in of the 1 mg/mile PM standard of LEV III, a denial of the GHG emission standards for MY 2022 and later, and a denial of the 2018 through 2025 MY ZEV requirements or a deferral on the 2021 and later MYs). As noted above, the commenters believe this finding should be made on one or more grounds, including: there exists either a lack of information or certainty of technological solutions based on the remoteness in time from the implementation of the standards; that there are questions of economic feasibility and marketability, including consumer demand; that technological consistency must include consideration of feasibility in section 177 states; and, that either the cost effectiveness of certain

---

101 *See e.g.*, 38 FR 30136 (November 1, 1973) and 40 FR 30311 (July 18, 1975).

102 To be consistent, the California certification test procedures need not be identical to the Federal test procedures. California procedures would be inconsistent, however, if manufacturers would be unable to meet both the state and Federal test requirements with the same test vehicle in the course of the same test. *See, e.g.*, 43 FR 32182, (July 25, 1978).

standards is unreasonable or that the standards are not needed for air quality purposes. EPA's process for evaluating lead time is discussed immediately below and in subsequent parts of this section. The industry opponents also raise arguments based on the cost of compliance with the standards (including cost-effectiveness), which will be discussed below and in other parts of this section. To the extent the commenters raise questions about the need for CARB's PM standards and that it could be the basis for EPA's waiver consideration, we address such concerns in the discussion above concerning section 209(b)(1)(B). EPA has already addressed the Dealers suggestions that CARB's ZEV requirements are not needed within the same discussion.

Regarding lead time, EPA historically has relied on two decisions from the U.S. Court of Appeals for the D.C. Circuit for guidance regarding the lead time requirements of section 202(a). Section 202(a) provides that an emission standard shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance. In *Natural Resources Defense Council v. EPA (NRDC)*, 655 F.2d 318 (D.C. Cir. 1981), the court reviewed claims that EPA's PM standards for diesel cars and light trucks were either too stringent or not stringent enough. In upholding the EPA standards, the court concluded:

Given this time frame [a 1980 decision on 1985 model year standards]; we feel that there is *substantial room for deference* to the EPA's expertise in projecting the likely course of development. The essential question in this case is the pace of that development, and absent a revolution in the study of industry, defense of such a projection can never possess the inescapable logic of a mathematical deduction. We think that the EPA will have demonstrated the reasonableness of its basis for projection if it answers any theoretical objections to the [projected control technology], identifies the major steps necessary in refinement of the technology, and offers plausible reasons for believing that each of those steps can be

completed in the time available (emphasis added).<sup>103</sup>

Another key case addressing the lead time requirements of section 202(a) is *International Harvester v. Ruckelshaus* (*International Harvester*), 478 F.2d 615 (D.C. Cir. 1979). In *International Harvester*, the court reviewed EPA's decision to deny applications by several automobile and truck manufacturers for a one-year suspension of the 1975 emission standards for light-duty vehicles. In the suspension proceeding, the manufacturers presented data which, on its face, showed little chance of compliance with the 1975 standards, but which, at the same time, contained many uncertainties and inconsistencies regarding test procedures and parameters. In a May 1972 decision, the Administrator applied an EPA methodology to the submitted data, and concluded that "compliance with the 1975 standards by application of present technology can probably be achieved," and so denied the suspension applications.<sup>104</sup> In reviewing the Administrator's decision, the court found that the applicants had the burden of coming forward with data showing that they could not comply with the standards, and if they did, then EPA had the burden of demonstrating that the methodology it used to predict compliance was sufficiently reliable to permit a finding of technological feasibility. In that case, EPA failed to meet this burden.

With respect to lead time, the court in *NRDC* pointed out that the court in *International Harvester* "probed deeply into the reliability of EPA's methodology" because of the relatively short amount of lead time involved (a May 1972 decision regarding 1975 MY vehicles, which could be produced starting in early 1974), and because "the hardship resulting if a suspension

---

<sup>103</sup> *Natural Resources Defense Council v. EPA*, 655 F.2d 318, 331. (emphasis added)

<sup>104</sup> *International Harvester v. Ruckelshaus*, 478 F.2d. 615, 626.

were mistakenly denied outweigh the risk of a suspension needlessly granted.”<sup>105</sup> The *NRDC* court compared the suspension proceedings with the circumstances concerning the diesel standards before it: “The present case is quite different; ‘the base hour’ for commencement of production is relatively distant, and until that time the probable effect of a relaxation of the standard would be to mitigate the consequences of any strictness in the final rule, not to create new hardships.”<sup>106</sup> The *NRDC* court further noted that *International Harvester* did not involve EPA’s predictions of future technological advances, but an evaluation of presently available technology.

EPA also evaluates CARB’s request in light of congressional intent regarding the waiver program generally. This is consistent with the motivation behind section 209(b) to foster California’s role as a laboratory for motor vehicle emission control, in order “to continue the national benefits that might flow from allowing California to continue to act as a pioneer in this field.”<sup>107</sup>

For these reasons, EPA believes that California must be given substantial deference when adopting motor vehicle emission standards which may require new and/or improved technology to meet challenging levels of compliance. This deference was discussed in an early waiver decision when EPA approved the waiver request for California’s 1977 MY standards:

Even on this issue of technological feasibility I would feel constrained to approve a California approach to the problem which I might also feel unable to adopt at the Federal level in my own capacity as a regulator. The whole approach of the Clean Air Act is to force the development of new types of emission control

---

<sup>105</sup> *NRDC*, 655 F.2d 318, 330.

<sup>106</sup> *Id.* The “hardships” referred to are hardships that would be created for manufacturers able to comply with the more stringent standards being relaxed late in the process.

<sup>107</sup> 40 FR 23102, 23103 (waiver decision citing views of Congressman Moss and Senator Murphy) (May 28, 1975).

technology where that is needed by compelling the industry to ‘catch up’ to some degree with newly promulgated standards. Such an approach to automotive emission control might be attended with costs, in the shape of a reduced product offering, or price or fuel economy penalties, and by risks that a wider number of vehicle classes may not be able to complete their development work in time. Since a balancing of these risks and costs against the potential benefits from reduced emissions is a central policy decision for any regulatory agency, under the statutory scheme outlined above I believe I am required to give very substantial deference to California’s judgment on that score.”<sup>108</sup>

CARB, while maintaining that the *NRDC* approach is the correct measurement here, commented that the technological sophistication of ZEVs currently being produced is anticipated to continue to advance, making commercial production and compliance of these vehicles by MY 2018 and later more feasible. CARB also notes that the only relevance of costs in a section 209(b) waiver proceeding is in the context of technological feasibility. “Past waiver determinations have made clear that for the cost of compliance to be found excessive it would need to be “very high” such that the cost to customers who purchased a complying vehicle would be doubled or tripled.”<sup>109</sup> Additionally, the relevance of the cost of compliance analysis is limited to the question of whether such costs will adversely affect the timing of an emission standard.”<sup>110</sup>

Under *NRDC*, when compliance with CARB standards is phased-in over a lengthy time period, the reasonableness of a projection of technological feasibility can be based on answering any theoretical objections to the projected control technology; identifying the major steps necessary in refinement of the technology; and offering plausible reasons for believing that each

---

<sup>108</sup> *Id.* at 23103.

<sup>109</sup> 74 FR 32744, 32774 (July 8, 2009).

<sup>110</sup> CARB’s waiver request at 25-26. *MEMA I*, 627 F.2d at 1105, 1114 n. 40 (“[T]he ‘cost of compliance’ consideration relates to the timing of standards and procedures.”) CARB notes that EPA has recognized that the only relevance of costs is their impact on timing, e.g. “Manufacturers do not contend that the cost of compliance will be significantly reduced by extending lead time beyond the minimal period required for compliance.” (36 FR 17459 (August 31, 1971)).

of those steps can be completed in the time available.<sup>111</sup> EPA's review of the evidence on the technological feasibility of CARB's ACC standards, in particular the standards which EPA received comment, follows.

Congress has stated that the consistency requirement of section 202(a) relates to technological feasibility.<sup>112</sup> Section 202(a)(2) states, in part, that any regulation promulgated under its authority "shall take effect after such period as the Administrator finds necessary to permit the development and application of the relevant technology, considering the cost of compliance within that time." Section 202(a) thus requires the Administrator to first review whether adequate technology already exists, or if it does not, whether there is adequate time to develop and apply the technology before the standards go into effect.

In *MEMA I*, the court addressed the cost of compliance issue at some length in reviewing a waiver decision. According to the court:

Section 202's cost of compliance concern, juxtaposed as it is with the requirement that the Administrator provide the requisite lead time to allow technological developments, refers to the economic costs of motor vehicle emission standards and accompanying enforcement procedures. See S. Rep. No. 192, 89<sup>th</sup> Cong., 1<sup>st</sup> Sess. 5-8 (1965); H.R. Rep. No. 728 90<sup>th</sup> Cong., 1<sup>st</sup> Sess. 23 (1967), reprinted in U.S. Code Cong. & Admin. News 1967, p. 1938. It relates to the timing of a particular emission control regulation rather than to its social implications. Congress wanted to avoid undue economic disruption in the automotive manufacturing industry and also sought to avoid *doubling or tripling* the cost of motor vehicles to purchasers. It, therefore, requires that the emission control regulations be technologically feasible within economic parameters. Therein lies the intent of the cost of compliance requirement (emphasis added).<sup>113</sup>

---

<sup>111</sup> *NRDC*, 655 F.2d 318, 331.

<sup>112</sup> H.R. Rep. No. 95-294, 95<sup>th</sup> Cong., 1<sup>st</sup> Sess. 301 (1977).

<sup>113</sup> *MEMA I* at 1118 (emphasis added). *See also id.* at 1114 n. 40 ("[T]he 'cost of compliance' criterion relates to

Previous waiver decisions are fully consistent with *MEMA I*, which indicates that the cost of compliance must reach a very high level before the EPA can deny a waiver. Therefore, past decisions indicate that the costs must be excessive to find that California's standards are inconsistent with section 202(a).<sup>114</sup> It should be noted that, as with other issues related to the determination of consistency with section 202(a), the burden of proof regarding the cost issue falls upon the opponents of the grant of the waiver.

Consistent with *MEMA I*, the Agency has evaluated costs in the waiver context by looking at the actual cost of compliance in the time provided by the regulation, not the regulation's cost-effectiveness. The appropriate level of cost-effectiveness is a policy decision of California that is considered and made when California adopts the regulations, and EPA, historically, has deferred to these policy decisions. EPA has stated in this regard, "the law makes it clear that the waiver request cannot be denied unless the specific findings designated in the statute can be made. The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209 ..."<sup>115</sup> Thus, EPA will look at the compliance costs for manufacturers in developing and applying the technology and not at cost effectiveness when making a waiver decision.

## 2. LEV III Criteria Pollutant Standards

---

the timing of standards and procedures.).

114 *See, e.g.*, 47 FR 7306, 7309 (Feb. 18, 1982), 43 FR 25735 (Jun. 14, 1978), and 46 FR 26371, 26373 (May 12, 1981).

115 36 FR 17158 (August 31, 1971). *See also* 40 FR 23102, 23104; 58 FR 4166 (January 7, 1993), LEV Waiver Decision Document at 20.

California has adopted new standards for exhaust emissions of non-methane organic gases (NMOG), NO<sub>x</sub>, and PM, as well as evaporative emissions standards. These standards phase in beginning with MY 2015. The LEV III standards are similar, in many respects, in structure to those in the existing federal Tier 2 program. As with the Tier 2 program, the proposed standards would apply to all light-duty vehicles (LDVs, or passenger cars, light-duty trucks (LDT1s, LDT2s, LDT3s, and LDT4s)) below 8,500 pounds GVWR (Gross Vehicle Weight Rating), and Medium-Duty Passenger Vehicles, or MDPVs (8,500 to 10,000 lbs GVWR). Based on our review of the LEV III criteria pollutant standards, and because EPA did not receive any comments objecting to CARB's LEV III criteria pollutant standards, with the exception of the PM standard issue discussed below, we find it unnecessary to provide a full written review whether such standards are consistent with section 202(a), as those opposing the waiver have clearly not met their burden regarding the issue, and we otherwise cannot make a finding that such standards are inconsistent with section 202(a).

#### a. Particulate Matter Standards

The Manufacturers generally note that testing for and complying with the revised particulate matter standards will present significant burdens on the industry. In short, the Manufacturers recommend that EPA withhold issuing a waiver for the MY 2025 PM standard. While noting that the phase in of the 3 mg/mile FTP PM standard beginning in MY 2017 will be very challenging, they nevertheless state that the Manufacturers are optimistic that vehicles will achieve this level with time. Recognizing that there are long lead time changes, the Manufacturers appear to be agreeing with CARB's planned phased-in approach starting in the



2017 MY. Also, the Manufacturers are not objecting to EPA issuing a waiver for the 3 mg/mile PM standards based on their stated testing concerns.

However, the Manufacturers believe the 1 mg/mile PM standard, which begins its phase-in starting in the 2025 MY, raises further feasibility issues. Based on their knowledge of PM measurement and vehicle PM control technology, the Manufacturers state that their members “see no way to both measure and meet this standard.” The Manufacturers believe that setting a standard that is unachievable today is inappropriate, and they do not believe EPA should issue a waiver for these standards at this time.

Finally, the Manufacturers note that there is ample time to revisit the waiver request without interfering with CARB’s implementation of standards should they be deemed feasible (during CARB’s planned review of the standard).

CARB’s supplemental comments note that the LEV III PM standards are based on a particular concern for their impact on public health and safety. As noted in their LEV III Technical Support Document, CARB acknowledges that while PM emissions from LDVs are not a major contributor to the inventory, they are a significant contributor to urban pollution and human exposure. CARB also notes that the exact amount of pollution reduced and the cost-effectiveness of particular California standards is not relevant to EPA’s waiver determination.

What is relevant, CARB maintains, is that thirteen years of lead time (from the date of its adopted regulations to the first model year of the phase-in standards in 2025) are provided to improve the test procedure and for industry to incorporate needed improvements to their engines and fuel systems. CARB maintains that it has consistently demonstrated PM measurement

capability at 1 mg/mi using new test procedures under development by EPA under 40 CFR Part 1066.<sup>116</sup> CARB suggests that EPA apply the rationale of *NRDC* and find that CARB has identified barriers to implementation of needed technologies and a viable path to overcome these barriers. For example, CARB states test data that they have presented demonstrates PM levels from current port fuel injected (PFI) engines below 1 mg/mi and from late model gasoline direct injection engines (GDI) approaching 1 mg/mi. CARB expects further technical improvements over the extensive lead time provided.<sup>117</sup> CARB has also identified that some of the low carbon technologies with proven track records that are most likely to be used (to meet GHG emission requirements) are: advanced port fuel injection engines, GDI engines, boosted and downsized engines, clean diesel engines, hybrid, and plug-in hybrid technology among others. CARB notes that each of these technologies will have a particular impact on PM emissions. CARB notes that many of these technologies may be able to currently meet 2025 MY PM standards and that further improvements are reasonable. For example: 1) CARB's Technical Support Document states "Some current, well-maintained PFI-equipped LDVs emit PM mass levels below 1 mg/mi. For example, published research reports PM emissions rates for both PFI ULEV and SULEV vehicles of approximately 0.7 mg/mi or much less over the Federal Test Procedure (FTP or FTP-75) cycle" and 2) "Car makers who choose to pursue gasoline-fueled, CO<sub>2</sub> friendlier GDI internal combustion engines for their future vehicles will have two principal technical solutions for further reduction of PM mass emissions. One solution can utilize next generation state-of-the-art

---

116 CARB notes that EPA has identified areas of improvement to Part 1066 it intends to evaluate in cooperation with CARB and industry (see pp. 54-59 of CARB's Technical Support Document at: <http://www.arb.ca.gov/regact/2012/leviiighg2012/levapppp.pdf>)

117 *Id.* at P-8 through P-20. CARB's Board has provided direction to its staff (Resolution 12-11 at 21) to conduct a review of the 1 mg/mi PM standard in the 2015 timeframe and report back to the Board its results.

engines (e.g., start-stop system where the ICE automatically shuts down and starts up at idle) with optimized fuel injection strategies (e.g., spray-guided central injector) at nearly no net cost increase. The second solution employs post-combustion control in the form of the gasoline particle filter (GPF) at an additional cost.”<sup>118</sup>

b. EPA’s Response to Comments

As explained below, EPA believes CARB presents a proper view of how lead time should be evaluated, for purposes of waiver review by EPA, and that CARB has provided reasonable responses to any theoretical objections to the projected control technology; identified the major steps necessary in refinement of the technology; and offered plausible reasons for believing that each of those steps can be completed in the time available.

We also believe that CARB has properly set forth the role of EPA in reviewing California standards which require new and/or improved technology to meet challenging levels of compliance. EPA is not setting its own standards under section 202(a) of the Clean Air Act, rather EPA’s role within its waiver review is more limited and takes place in the context of deference that Congress envisioned for California. This deference was discussed in an early waiver decision when EPA approved the waiver request for California’s 1977 model year standards:

Even on this issue of technological feasibility I would feel constrained to approve a California approach to the problem which I might also feel unable to adopt at the Federal level in my own capacity as a regulator. The whole approach of the Clean Air Act is to force the development of new types of emission control technology where that is needed by compelling the industry to ‘catch up’ to some degree with newly promulgated standards. Such

---

<sup>118</sup> *Id.*

an approach to automotive emission control might be attended with costs, in the shape of a reduced product offering, or price or fuel economy penalties, and by risks that a wider number of vehicle classes may not be able to complete their development work in time. Since a balancing of these risks and costs against the potential benefits from reduced emissions is a central policy decision for any regulatory agency, under the statutory scheme outlined above I believe I am required to give very substantial deference to California's judgment on that score.<sup>119</sup>

Regarding the feasibility of the CARB 1 mg/mile PM standard that commences its phase-in starting with the 2025 MY, EPA believes that it is proper to review this through the *NRDC* prism. In other words, EPA believes it appropriate to provide substantial room for deference to CARB's projections. Although the Manufacturers have raised a variety of concerns they have not provided any data or other information to demonstrate why the pathways and steps identified by CARB are unreasonable. EPA believes having given appropriate deference that CARB has reasonably projected possible pathways to address the theoretical concerns with the 2025 phased-in PM standard, including concerns relating to testing capability. The Manufacturers have provided no data or other information to demonstrate why CARB's identified path of improvements in testing technology and procedures is not feasible in the lead time provided. Similarly, the Manufacturers have provided no data or other information to demonstrate why CARB's identified technology solutions and possible refinements are infeasible, especially given the amount of lead time provided. Given the amount of lead time provided by CARB and their identified paths for improvements, EPA believes the opponents to the waiver have not met their burden of proof in regards to the PM standards commencing in MY 2025.

---

<sup>119</sup> 40 FR 23102, 23103 (May 28, 1975).

Therefore, based on the record before us, EPA cannot find that the opponents of the PM standard in 2025 have met their requisite burden of proof to demonstrate that such standards are inconsistent with section 202(a). Thus EPA cannot deny CARB's ACC waiver request on this basis.

### 3. LEV III GHG Emission Standards

CARB has worked closely with EPA and NHTSA throughout the development of the MY 2017-2025 GHG emission standards and has moved in parallel with the agencies in setting standards that are essentially equivalent in terms of lead time and stringency. CARB projects that its GHG emissions standards for MYs 2017-2025 will reduce fleet average CO<sub>2</sub> levels by about 34 percent from MY 2016 levels of 251 g/mile down to about 166 g/mile, based on the projected mix of vehicles sold in California. The basic structure of the GHG standards is consistent with that of EPA's GHG standards. CARB uses two vehicle categories, passenger cars and light trucks. CARB projects that the standards will reduce car CO<sub>2</sub> emissions by approximately 4.9%/year, reduce truck CO<sub>2</sub> emissions by approximately 4.1%/year (the truck CO<sub>2</sub> standard target curves move downward at approximately 3.5%/year through the 2016-2021 period and about 5%/year from 2021-2025), and reduce combined light-duty CO<sub>2</sub> emissions by approximately 4.5%/year from 2016 through 2025.

CARB notes that the CO<sub>2</sub> emission reduction estimates are approximate because the required emission level to achieve compliance with the standards for each vehicle manufacturer depends on each manufacturer's ultimate sales mix of vehicles.<sup>120</sup> Within the two categories, the CO<sub>2</sub> standard targets for vehicle models sold by each automaker are indexed to the vehicles' footprint,

---

<sup>120</sup> EPA-HQ-OAR-2012-0562-0011 at ES-6.

which is calculated as each vehicle model's wheelbase times its average track width. As a result of this regulatory structure, the precise CO<sub>2</sub> emission rates that will result from the standards in each year from 2017 through 2025 will depend on the ultimate sales-weighted mix of vehicles (i.e., according to vehicle sales in each category and the footprint of the models) sold in each year.

CARB also adopted separate nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>) standards that are harmonized with the standards EPA first adopted in the MY 2012-2016 rulemaking. As with the EPA program, manufacturers may use CO<sub>2</sub> credits to meet the N<sub>2</sub>O and CH<sub>4</sub> standards on a CO<sub>2</sub>-equivalent basis.

CARB includes most of the flexibilities established by EPA for MYs 2017-2025. CARB includes averaging, banking, and trading provisions which allow for 5-year credit carry-forward and 3-year credit carry-back and credit trading between manufacturers. Manufacturers may generate air conditioning system credits through system efficiency improvements, low refrigerant leakage designs, and use of low global warming potential refrigerants. Manufacturers may generate up to 18.8 g/mile CO<sub>2</sub>-equivalent credit for cars and 24.4 g/mile CO<sub>2</sub>-equivalent credits for trucks from air conditioning system improvements. CARB also moved to harmonize air conditioning system test procedures with EPA, replacing the A/C idle test requirement with the AC17 test procedure.

In addition CARB adopted off-cycle credits provisions similar to those adopted by EPA, which provide credits to manufacturers based on real world improvements in CO<sub>2</sub> emissions not captured on the 2-cycle test procedure. CARB adopted a list of pre-approved credits that

manufacturers may claim by using pre-approved technologies. As with the EPA program, off-cycle credits based on the pre-approved credits list is capped at 10 g/mile. CARB also provides full-size pickup truck technology credits of 10 or 20 g/mile per vehicle depending on the level of technology employed, similar to the EPA program. Manufacturers may generate technology incentive credits by using hybrid technologies or by meeting performance-based criteria over a specified minimum percentage of full size pickup truck production.

The EPA and CARB programs differ in their treatment of advanced technology vehicles, specifically plug-in hybrids, battery electric vehicles, and fuel cell vehicles. EPA's program encourages the production of these advanced technology vehicles in two ways; by providing incentive multipliers for these technologies and by not counting the upstream emissions associated with electric operation for the first several model years of the program.<sup>121</sup> CARB does not provide a multiplier incentive or allow for the use of a 0 g/mile compliance value. CARB explains that incentives are not needed for plug-in hybrids, battery electric vehicles, and fuel cell vehicles under their GHG program because the California ZEV program requires manufacturers to produce vehicles using these technologies.

In its Final Statement of Reasons, CARB reiterated its commitment, as directed by Board Resolution 12-11, to accept compliance with EPA's GHG emission standards for MY 2017-2025 as compliance with California's GHG standards if CARB determines that EPA's final rule preserves the GHG reduction benefits set forth in EPA's proposed rule.<sup>122</sup> CARB also notes their plan to adopt a "deemed to comply" rule within their waiver request to EPA. EPA stated in

---

<sup>121</sup> EPA allows a 0 g/mile compliance value to be used for vehicles sold in MY2017-2021 and caps the cumulative number of vehicles that a manufacturer may use the 0 g/mile compliance value for in MYs 2022-2025.

<sup>122</sup> California Air Resources Board, EPA-HQ-OAR-2012-0562-0021, at 16.

the **Federal Register** notice announcing the opportunity for hearing and comment on CARB's June 27, 2012 ACC waiver request that "EPA invites comment on all aspects of CARB's waiver request, and specifically invites comment on CARB's waiver request in light of CARB's plans concerning adoption of a "deemed to comply" provision into its LEV III GHG standards. This will allow EPA to consider any "deemed to comply" provision and comments on it when taking action on CARB's request for a waiver."<sup>123</sup>

On September 14, 2012, CARB proposed amendments to their program to permit compliance based on compliance with EPA's GHG standards. In its discussion of the differences between the EPA and CARB programs with regard to the treatment of advanced technology vehicles, CARB notes that manufacturers will have the option to comply with the federal program and utilize the EPA accounting provisions for these vehicles.<sup>124</sup> On November 15, 2012, the Air Resources Board agreed to accept compliance with federal standards as equivalent to compliance with California's, approving the amendment for "deemed to comply."

<sup>125</sup> On December 7, 2012, CARB submitted additional information to EPA noting that CARB had approved further amendments to the ACC program, including the "deemed to comply" regulation, and therefore California has met its commitment to the National Program. CARB requested that EPA consider and take action on these amendments concurrent with the request set forth in CARB's June 27, 2012 ACC waiver request<sup>126</sup>

a. Comments on CARB's 2017 through 2025 GHG Emission Standards

---

<sup>123</sup> 77 FR 53199, 53200 (August 31, 2012).

<sup>124</sup> Air Resources Board, EPA-HQ-OAR-2012-0562-0011, at 135.

<sup>125</sup> CARB Resolution 12-35 (November 15, 2012)

<sup>126</sup> EPA-HQ-OAR-2012-0562-0374.



CARB's waiver request notes that in 2010, President Barack Obama directed EPA and NHTSA to work with California to develop GHG fleet standards for MY 2017 through 2025 light-duty vehicles. In response, the three agencies developed the Interim Joint Technical Assessment Report (TAR), released in September 2010. The TAR was major milestone in the technical work done collaboratively by EPA, NHTSA, and CARB. CARB held four public technical workshops covering topics of efficiency, mass-reduction, and safety technology; collaborative technical contract work (e.g., with FEV, Ricardo, Lotus); and extensive meetings with a wide range of stakeholders to gather input. This collaboration ensured that the three agencies had a common set of technical information on which to inform their proposals, allowing the agencies to develop standards that are harmonized in terms of their stringency.

CARB further notes that the feasibility analysis underlying its standards is based on several existing and emerging technologies that increase engine and transmission efficiency, reduce vehicle energy loads, improve auxiliary and accessory efficiency, and that would increasingly electrify vehicle subsystems with hybrid and electric drivetrains. The technology assessment conducted by CARB for the MY 2017-2025 standards builds on the original technical basis established in the previous rulemakings for California's MY 2009-2016 and federal MY 2012-2016 standards. CARB notes that several individual technologies offer substantial CO<sub>2</sub> reduction potential and that many of the technologies have only seen limited deployment in new vehicle models.<sup>127</sup>

In its Initial Statement of Reasons staff report, CARB highlights several CO<sub>2</sub> reduction

---

<sup>127</sup> California Air Resources Board, EPA-HQ-OAR-2012-0562-0011, at 102-103.

technologies that manufacturers can employ to meet the standards.<sup>128</sup> The list of technologies cited by CARB is very similar to the list of technologies considered by EPA and NHTSA in evaluating standards for MYs 2017-2025.<sup>129</sup> Vehicle road load and accessory energy loads can be improved, for example, through mass reduction, improved accessories, electric power steering, improved aerodynamics, and low rolling resistance tires. CARB notes several considerable opportunities for engine efficiency improvements. Engine efficiency technologies include turbo charging and downsizing, gasoline direct injection, continuously variable valve lift, cylinder deactivation, and diesel-fueled engines. CARB also describes transmission efficiency improvements important in allowing the operation of the engine in its lowest fuel consumption operating points more frequently. These include more gears (e.g., 8 speed transmissions), closer gear ratio spacing, optimized controls, and dual clutch transmissions that allow essentially the same efficiency as manual transmissions.

CARB's analysis also includes various hybrid systems that offer significant potential CO<sub>2</sub> reductions through the elimination of engine idling, reduction in fuel consumption during deceleration, reduction of acceleration power requirement through launch assist, and the recovery of vehicle energy losses through regenerative braking during deceleration. Finally, CARB also includes emerging electric drive technologies including plug-in hybrids, electric, and hydrogen fuel cell vehicles.

EPA received several comments on CARB's waiver request generally supporting the California GHG standards as feasible and consistent with CAA section 202(a). The

---

128 California Air Resources Board, EPA-HQ-OAR-2012-0562-0011, at 103-108

129 Joint Technical Support Document: Final Rulemaking for 2017-2025 Light-duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, Chapter 3, EPA-420-R-12-901, August 2012.

Environmental Defense Fund (EDF) and the Natural Resources Defense Council (NRDC) commented that CARB coordinated with EPA and NHTSA in the development of the GHG standards and the California GHG standards are aligned with the federal GHG standards in terms of stringency and lead time. EDF further commented that EPA received letters from 13 automakers supporting the federal GHG standards, and based on this coordination and support EPA can only determine that the CARB GHG standards are feasible<sup>130</sup>

EPA received comments from the Dealers that EPA should not provide a waiver to California for the MY 2022-2025 GHG standards because the standards for these years are not consistent with CAA section 202(a). The commenter states that by committing to a mid-term evaluation in its own GHG program, EPA has already determined that “technological capabilities after MY 2022 are too remote to be accurately predicted.” The commenter argues that it is inappropriate for CARB to obtain a waiver for years where it cannot demonstrate technological feasibility regardless of the fact that California has agreed to participate in the mid-term review. The Dealers assert that by agreeing to participate in the mid-term evaluation, CARB “has admitted that the technological feasibility of its GHG standards for MYs 2022-2025 is not knowable at this time.”

As part of the waiver decision process, CARB’s supplemental comments provided a response to comments submitted by NADA, including a response to NADA’s comments regarding the feasibility of the MY 2022-2025 standards.<sup>131</sup> CARB comments that NADA concerns are not supported by relevant case law and should be dismissed. CARB comments that NADA is

---

130 EDF’s comment at EPA-HQ-OAR-2012-0562-0025 and 0353; and NRDC’s comment at EPA-HQ-OAR-2012-0562-0347.

131 EPA-HQ-OAR-2012-0562-0373 at 8.

disregarding decades of precedent that clearly sets out the appropriate “technological feasibility” analysis under section 202(a). Citing *Natural Resources Defense Council v. U.S. Environmental Protection Agency*, (1981) 655 F.2d 318, 331, CARB notes CAA section 202(a) has historically been interpreted to allow for projections of likely future technological development. Such projections do not need to “possess the inescapable logic of a mathematical deduction.” Instead, such a projection is considered sufficient if it “answers any theoretical objections to the [projected technology], identifies the major steps necessary in refinement of the technology, and offers plausible reasons for believing that each of those steps can be completed in the time available.” Moreover, where the requirements of a standard are phased in over a lengthy period of time it bears on the likelihood of a proper finding of technological feasibility. CARB notes that the great length of time provided – until after MY 2022- supports a finding of technological feasibility under *NRDC*, and would be in line with past EPA waiver decisions.

b. EPA Response to Comments

EPA disagrees with NADA’s characterization of the mid-term review as it relates to the technological feasibility of the standards for MYs 2022-2025. As discussed in the final rule for the EPA’s GHG emission standards, EPA has found that its standards are technologically feasible under CAA section 202(a), based on available information regarding technology and costs.<sup>132</sup> EPA could not have adopted the standards for MYs 2022-2025 if it did not find the standards to be consistent with CAA section 202(a) which requires EPA to consider issues of technological feasibility, cost, and available lead-time.<sup>133</sup> As EPA discusses in the final rule in

---

<sup>132</sup> 77 FR 62880-62882 and 62777.

<sup>133</sup> See 77 FR 62671-62673 for discussion on EPA statutory authority.

response to comments, “EPA does not agree that the mid-term evaluation is legally required, or that the standards adopted today would be arbitrary and capricious or without substantial evidence to support them absent such a mid-term evaluation. The final rule and supporting information and analysis amply justify the reasonableness and appropriateness of the final GHG standards adopted by EPA, irrespective of the provisions for a mid-term evaluation.”<sup>134</sup> EPA is committed to conducting a mid-term evaluation for MYs 2022-2025 in close coordination with NHTSA and CARB given the long time frame in implementing standards out to MY 2025 and given NHTSA’s obligation to conduct a separate rulemaking in order to establish final standards for vehicles for those years.<sup>135</sup> With respect to the waiver, however, EPA believes that NADA’s reference to the mid-term review does not demonstrate technological infeasibility (or any requisite level of uncertainty) or that the CARB standards are inconsistent with section 202(a), particularly given that the CARB standards are closely aligned to those adopted by EPA. In addition, compliance with EPA’s GHG standards will be deemed to be compliance with CARB’s GHG standards. EPA agrees with CARB’s response to the NADA concerns and believes that a reasonable technology path forward has been projected in support of the MY 2022-2025 standards, which is further supported by the substantial amount of lead-time provided for these standards. EPA believes that the substantial amount of lead-time provided also accords with a finding of technological feasibility under *NRDC*, and would be in line with past EPA waiver decisions.

EPA did not receive any additional comments on the waiver decision regarding the

---

<sup>134</sup> 77 FR 62786  
<sup>135</sup> 77 FR 62784-62788

technology assessment or cost analysis done by CARB in support of their GHG standards.

CARB has adopted GHG standards that are closely aligned to those adopted by EPA for MYs 2017-2025. In EPA's final rule establishing the MY 2017-2025 standards, EPA concluded that the standards are feasible in the lead time provided and the costs are reasonable, as required under Section 202(a) of the CAA.<sup>136</sup> The technical basis for the standards was developed jointly by EPA, NHTSA, and CARB. The methodology and underlying data used by CARB to assess technologies and costs, as summarized above, are very similar and in many cases the same as those used by EPA to assess the standards.<sup>137</sup> The extended lead time provides the necessary time for manufacturers to combine individual technologies, many of which are currently available, into optimized packages and apply them across their vehicle fleets.

It is also important to note that the EPA and CARB GHG programs are very similar in terms of the structure of the programs and flexibilities contained in the programs. The CO<sub>2</sub> standards are attribute-based fleet average standards, based on vehicle footprint curves that are identical. The programs include averaging, banking, and trading provisions. Both GHG programs offer credits for air conditioning system improvements, off-cycle CO<sub>2</sub> reductions, and full-size pickup truck technology incentives. Both GHG programs contain the same N<sub>2</sub>O and CH<sub>4</sub> standards and essentially the same provisions for small volume manufacturer and small businesses.

There are some aspects of the CARB program that differ from the EPA program but, as discussed below, EPA does not believe that these differences change the feasibility of the

---

<sup>136</sup> 77 FR 62624

<sup>137</sup> See 77 FR 62702-62713 for a description of the EPA and NHTSA joint technology and cost assessment. More detail is provided in the joint Technical Support Document for the rule.

standards in any significant way. CARB has explained in detail how these standards can be met using technologies that are reasonably expected to be available in the regulatory timeframe.

NADA does not substantially undermine this explanation.

CARB estimated an average per vehicle cost in MY 2025 of \$1,340 without the new ZEV requirements and \$1,840 with the new ZEV requirements. In its final rule, EPA estimated an average per vehicle cost of about \$1,800 in MY 2025 for the EPA GHG standards. Both agencies conclude that these up-front per vehicle costs will be more than offset by consumer fuel savings over the life of the vehicles.

Perhaps the most significant differences between the CARB and EPA vehicle programs involve the new California ZEV requirements which mandate use of ZEV-type technologies for a portion of a manufacturer's fleet, and therefore may alter the technology pathways that manufacturers might otherwise choose to meet the GHG standards. EPA has reviewed the consistency of the ZEV requirements with section 202(a) separately below

The CARB and EPA programs also differ in the treatment of vehicles capable of electric operation. EPA provides an advanced technology incentive multiplier through MY 2021 to encourage the increased sales of plug-in hybrids (PHEVs), electric vehicles (BEVs), and fuel cell vehicles (FCVs). CARB does not provide advanced technology incentive credits for these vehicles because these types of vehicles are required under the ZEV program and an incentive is not necessary. CARB also accounts for upstream emissions from electric operation starting in MY 2017 while EPA phases in upstream accounting for MY 2022-2025 vehicles after vehicle sales thresholds are exceeded. These differences mean that PHEVs, BEVs, and FCVs do not

receive as much credit in the CARB program compared to the EPA program. However, these vehicles still offer significantly lower CO<sub>2</sub> levels in the CARB program compared to more conventional technologies, lowering a manufacturer's CO<sub>2</sub> fleet average.

There are other minor differences between the CARB and EPA programs but EPA does not believe the differences have a significant impact on feasibility. Many of the differences in the programs arise from changes EPA made to various provisions between the proposal and final rules in response to comments. CARB delineates these minor differences in the Initial Statement of Reasons for their proposal to accept compliance with EPA's GHG emission standards as compliance with California's GHG emission standards (aka "deemed to comply").<sup>138</sup> These include revisions to the off-cycle credits, air conditioning system credits, and full-size pick-up credits. While most of the changes made by EPA in its final rule directionally provide somewhat more flexibility to manufacturers, the changes do not ultimately change the level of credits potentially available. CARB concludes and EPA agrees that the programs remain sufficiently comparable.

Finally, as discussed below, most if not all manufacturers will very likely opt to comply with the California program by complying with the EPA GHG emission standards, as permitted by the "deemed to comply" regulation. Therefore, the small differences between the programs will not in such cases have any practical implications for manufacturers. As CARB notes in its waiver request, "Throughout the development of the LEV III GHG regulations, California coordinated with the EPA and NHTSA on technical and economic areas, and CARB has moved in parallel with the federal rulemaking in terms of stringency of the standards and lead time for

---

<sup>138</sup> EPA-HQ-OAR-2012-0562-0374 at 6-13.



compliance.” Given this coordination, commenters have not shown that the LEV III GHG regulations are technologically infeasible or that the lead time provided is inadequate.

The Manufacturers note that they do not oppose California’s request for a Section 209(b) waiver for its GHG emission standards but state that it would not be appropriate for the waiver to be granted until after California has finalized its regulatory amendments to allow for a national compliance option.<sup>139</sup> “This national compliance option is integral to the commitment letters the industry and California signed in July 2011 and to the single national GHG/fuel economy program all stakeholders sought to achieve.”

As noted above, CARB notified EPA by letter dated December 7, 2012 that CARB has approved further amendments to its ACC program, including the “deemed to comply” regulation.<sup>140</sup> Included in CARB’s December 7, 2012 letter to EPA is CARB’s “Final ‘Clean’ Version of California’s 2017-2025 Advanced Clean CAR Program, including its Passenger Vehicle Greenhouse Gas Regulations and LEV/GHG Test Procedures, and its ZEV regulations and Test Procedures” all as amended December 6, 2012.<sup>141</sup>

EPA has not received any comment, based on its August 31, 2012 **Federal Register** Notice, that CARB’s “deemed to comply” regulation raises any issues regarding technological feasibility. EPA did receive comment from the Manufacturers requesting that EPA not grant CARB a waiver for its GHG emission standards until after CARB has finalized their “deemed to

---

<sup>139</sup> The Manufacturers note that California does not believe that another waiver request is necessary once the amendments are finalized, further supporting its request to wait until after CARB finalizes its rule.

<sup>140</sup> See CARB’s Resolution 12-35 (November 15, 2012) at EPA-HQ-OAR-2012-0562-0374 (attachment 64), Executive Order R-12-016 (December 6, 2012) at EPA-HQ-OAR-2012-0562-0374 (attachment 66).

<sup>141</sup> See EPA-HQ-OAR-2012-0562-0374 (attachment 65).

comply” regulations. Today’s waiver applies to CARB’s final regulation as adopted on December 6, 2012.

After review of the information in this proceeding, EPA believes that those opposing the waiver have not met their burden of showing that compliance with California’s GHG standards is infeasible, even without the deemed to comply provision, based upon the current and future availability of the described technologies in the lead-time provided and considering the cost of compliance. The CARB technical information presented in this record clearly indicates that these requirements are feasible. In addition, California’s regulations include a “deemed to comply” provision which provides further strong support for this view. EPA therefore determines that those opposing the waiver have not met the burden of producing the evidence necessary for EPA to find that California’s GHG standards, including the “deemed to comply” provision, are not consistent with Section 202(a).

#### 4. California’s ZEV Amendments as They Affect 2018 through 2025 Model Years

As noted above, after a thorough review of CARB’s ZEV amendments, we have determined that such amendments, as they affect 2017 and earlier MYs, are within the scope of previous waivers of preemption. However, EPA recognizes that such amendments add significant new requirements, as they affect 2018 and later MYs, and therefore such amendments are reviewed under the full waiver criteria.

##### a. Comments on CARB’s ZEV Amendments

CARB notes in its waiver request that to date, all vehicle manufacturers operating in California are in full compliance with the ZEV mandate. Nearly 5,600 ZEVs (BEVs and FCVs)

are in operation statewide and 380,000 AT PZEVs are also in operation. Fuel cell vehicle and infrastructure is progressing with several automakers moving toward commercialization sometime after 2015. Cumulatively, automakers plan to have 50,000 FCVs operational in California by 2017, according to CARB.<sup>142</sup> CARB also notes that most manufacturers have near-term production plans to meet or over comply with the regulatory requirements through MY 2017. In addition, recently a number of manufacturers have announced aggressive production plans for PHEVs and BEVs for the next three MYs. CARB maintains that these announcements reflect technological advancement in lithium-ion battery technology and a general shift in customer demand and concern about environmental stewardship. CARB provides a table in its waiver request that summarizes manufacturers' current ZEV and TZEV program commitments, by technology category and as publicly stated.<sup>143</sup> CARB suggests that the table reveals that nearly every manufacturer will be introducing BEV and PHEV products within the next one to three years, and five manufacturers will commercially introduce FCVs by 2015. CARB states that the technological sophistication of ZEVs currently being produced is anticipated to advance, making commercial production and compliance of these vehicles by MY 2018 and later more feasible. A new feature of the ZEV amendments is that manufacturers will be allowed to use a variety of battery and fuel cell vehicle technologies to comply with the ZEV requirement, making compliance still more feasible. Finally, CARB notes that during its rulemaking proceedings for the adopting of the 2012 ZEV amendments they did not receive any comments questioning the overall technological feasibility of the amended standards.

---

<sup>142</sup> See CARB's Initial Statement of Reasons (ISOR), EPA-HQ-OAR-2012-0562-0008 at 11.

<sup>143</sup> CARB waiver request at 27-28.

With regard to the manufacturer costs associated with the ZEV emission requirements CARB states that the “ZEV regulation must be considered in conjunction with the proposed LEV III amendments. Vehicles produced as a result of the ZEV regulation are part of a manufacturer’s light-duty fleet and are therefore included when calculating fleet averages for compliance with the LEV III GHG amendments. Because the ZEVs have ultra-low GHG emission levels that are far lower than non-ZEV technology, they are a critical component of automakers’ LEV III GHG standard compliance strategies. As such the ZEV program cost is considered as the difference in complying with the LEV III GHG fleet standard without the proposed amendments to the ZEV regulation versus with the proposed amendments to the ZEV regulation. Assuming that all of the associated direct manufacturing and ICMs are passed on to consumers, the average incremental price increase that results from the proposed LEV III GHG fleet standards and proposed ZEV regulation over the 2017 through 2025 timeframe will differ from the average increase resulting from compliance with only the LEV III GHG amendments. The average incremental vehicle price due to proposed LEV III GHG standards, but with no amendments to the current ZEV regulation, in 2025 is expected to be \$1,340. The average incremental vehicle price considering the proposed LEV III GHG fleet standards and the proposed ZEV requirements in 2025 MY increases to \$1,840, a \$500 incremental increase. ... In the broader context of the overall fleet, the ultra-low GHG ZEV technology is a major component of compliance with the LEV III GHG fleet standards for the overall light duty fleet. In that fleet context, the overall cost of the ZEV program is the difference in costs between the “GHG-plus-ZEV” and the “GHG only” scenarios.”<sup>144</sup>

---

144 CARB’s ISOR at pp. 62-63.

EPA has also received comment from several consumer and environmental groups that support CARB's ZEV amendments. The Consumer Federation of America (CFA) provided comment that "California's ability to set these strong standards is vitally important to the advancement of the auto industry and for meeting consumer demand for cleaner and more efficient cars in states across the nation. Consumers understand the benefits and have consistently voiced support for California's leadership on clean car standards. In fact, CFA's latest poll on the subject found that "more than 70% of Americans support states being allowed to continue setting tailpipe emission standards that, as a result, increase fuel economy for motor vehicles." This commenter also provides the latest from a *Consumer Reports* poll on the subject, including "Seventy-five percent of California consumers think California should require automakers to build fleets that include increasing numbers of zero emission vehicles including electric and hydrogen fuel cell cars."<sup>145</sup> EPA received comment from Consumer Reports/Consumers Union (Consumer Reports) in support of CARB's ACC program and notes the survey above. In addition, Consumer Reports notes that vehicle manufacturers are already offering plug-in hybrids and BEVs, with new models appearing all the time. "Consumers, particularly in California, are very open to buying alt-fuel vehicles. Importantly, some of the cleanest vehicles or alt-fuel vehicles are also proving very satisfying to vehicle owners."<sup>146</sup> EPA also received oral testimony from Calvert Investments noting that CARB's ACC program will help drive innovation, investment, and job creation and thus they strongly support both the LEV III (including GHG standards) and ZEV requirements in the ACC program. "Customers want

---

<sup>145</sup> EPA-HQ-OAR-2012-0562-0032.

<sup>146</sup> EPA-HQ-OAR-2012-0562-0354.

and in an increasing number of countries require cleaner cars and trucks, to go further on every gallon of gas, while cutting back on GHG emissions that contribute to climate change.

Companies that fail to embrace relevant new technologies, from improving mileage for conventional internal combustion engines to developing hybrid, electric, and fuel cell vehicles, are putting themselves at risk.”<sup>147</sup>

In addition, EPA received comment from NRDC that provided specific input on the criterion for consistency with CAA Section 202(a). NRDC states that the forecasted ZEV sales in California exceed ZEV requirements. In a report jointly published with NRDC, auto industry analysts Baum and Associates projected potential ZEV sales from 2015 to 2020. The 2012 ZEV amendments expect ZEV sales of about 75,000 vehicles in MY 2018 and 130,000 vehicles in 2020. The Baum Associates assessment, conducted before the ZEV amendments were proposed, projected ZEV sales of as much as 160,000 in MY 2018 and 180,000 in MY 2020. Baum and Associates also forecasts on an ongoing basis for the introduction of new ZEV models into the marketplace in the next few years, demonstrating the technical feasibility of ZEV technologies today. The Baum and Associates forecasts are based on detailed information about supplier and OEM production plans. NRDC compared the Baum and Associates forecast for BEVs, PHEVs, and FCVs to the ZEV and TZEV production announcements included by CARB in their waiver request. NRDC found that there are even more models that will be introduced than identified by CARB.<sup>148</sup>

---

147 EPA Hearing Transcript at 83. EPA-HQ-OAR-2012-0562-0026.

148 EPA-HQ-OAR-2012-0562-0347. See Baum and Mui, “The Zero Emission Vehicle Program: An Analysis of Industry’s Ability to Meet the Standards”, May 2010. Available at [http://docs.nrdc.org/energy/files/ene\\_10070701a.pdf](http://docs.nrdc.org/energy/files/ene_10070701a.pdf).

EPA received comment both from the Manufacturers and the Dealers stating their objections to CARB's ZEV amendments as they affect 2018 and later MYs. The Manufacturers provide essentially three arguments for their assertion that the ZEV regulations are infeasible, particularly when applied individually in section 177 States. (The Manufacturers state that the amendments before EPA require an increasing number of ZEVs in California and each of the section 177 States.)<sup>149</sup> The Manufacturers claim that: 1) the infrastructure for BEVs will not be sufficient by MY 2018 to support increased sales of BEVs and that CARB has not explained how it determined that the infrastructure and the level of consumer demand in the Section 177 States will be sufficient to justify the ending of the travel provisions for ZEVs after MY 2017; 2) the cost of the ZEV program far exceeds its environmental benefits, especially when compared to the LEV III and GHG programs in terms of cost per ton of CO<sub>2</sub> removed; and 3) the current data on consumer demand for ZEVs indicates that it will not be feasible to meet the sales requirements for 2018 MY and beyond. In conjunction with this third argument the Manufacturers contend that the market for these types of vehicles has not developed as quickly as anticipated and therefore there is no basis to conclude that BEV sales will reach required levels by 2025. (The Manufacturers also state that it is "highly unlikely that the required infrastructure and level of consumer demand for ZEVs will be sufficient by MY 2018 in either California or in the individual Section 177 States to support the ZEV sales requirements mandated by CARB.) Because of these concerns the Manufacturers suggest that EPA deny the ZEV waiver for 2018 and later MYs, or at least defer the program for MY 2021 and later, until

---

<sup>149</sup> EPA believes the Manufacturers have mischaracterized the nature of CARB's waiver request. CARB has only submitted its own ACC regulations to EPA and it has not submitted, nor has any other State submitted, section 177 state regulations.

California, EPA, and the auto industry have conducted a mid-term review of ZEV similar to the GHG program.

As noted above, the Manufacturers provide EPA with current vehicle sales and registration data. These data include current sales figures for hybrids (approximately 3 % of annual sales nationally and approximately 6.1% in California according to registration data). The Manufacturers note that registration of hybrids in section 177 states is far lower. The Manufacturers maintain that the low sales numbers are due substantially to the increased cost relative to traditional vehicles, and that the demand for BEVs in section 177 States is particularly “sluggish.” However, the comments EPA received did not include forecasts, projections, data, or other evidence to support the Manufacturer’s conclusions about future ZEV sales, or in particular, to demonstrate that the CARB ZEV requirements are infeasible.

The Dealers maintain that technological feasibility requires that not only certain technologies be possible, but they also be “economically achievable.”<sup>150</sup> The Dealers maintain that in order for ZEV vehicles to be marketable they must: 1) be at least as safe as comparable conventionally-fueled vehicles, 2) offer a range comparable to conventionally-fueled vehicles, 3) offer a refueling time comparable to conventionally-fueled vehicles, 4) offer similar performance and capacities, and 5) come to market at a cost comparable to conventionally-fueled vehicles. The Dealers maintain that CARB’s estimates that ZEVs and TZEVs that will cost approximately

---

150 NADA points to CARB’s waiver request at 25 wherein CARB states “It is well established that EPA will find a regulation to be technically feasible if ‘a reasonable basis [exists] that a new technology will be available and economically achievable.’” However, NADA fails to reference CARB’s subsequent ( and EPA believe the appropriate view of cost) statement on the same page: “The only relevance of costs in a Section 209(b) waiver proceeding is in the context of technological feasibility. Past waiver determinations have made clear that for the cost of compliance to be found excessive it would need to be ‘very high’ such that the cost to consumers when purchased a complying vehicle would be doubled or tripled.”



\$10,000 more than comparable traditional vehicles, with at best no performance advantages, are by definition not feasible as they will be unable to compete in the marketplace.

CARB provides several responses to the comments submitted by the Manufacturers. In terms of the applicability of section 177 within EPA's section 209 waiver deliberations, and consideration of the technological feasibility of CARB's amendments adopted in such states, CARB notes that the proper scope of EPA's inquiry is limited by the express terms of section 209(b). This is well illustrated both in past waiver determinations and in case law.<sup>151</sup> While CARB discredits the view that EPA should consider the feasibility of ZEV in other states, it also notes that charging infrastructure in states other than California does not seem to be a concern as both Nissan and General Motors are currently marketing advanced technology vehicles nationally, and Ford will begin 50-state marketing in early 2013. EPA notes that although it is unclear whether the Manufacturers are contesting the current or future adequacy of infrastructure in California (other than a sentence that states it is "highly unlikely"), CARB nevertheless sets forth that there is much activity in the field of electric vehicle charging infrastructure, and that public charging programs are being funded by the California Energy Commission, U.S. DOE EV Everywhere program, the U.S. DOE EV Project, and other programs to address the needs of plug in vehicles. CARB also states that it appears that charging infrastructure is sufficient and efforts underway to address infrastructure needs (through the programs noted above and CARB's own ZEV Executive Order) are focused on highest priority charging locations, namely multi-family dwellings and workplace charging.

---

<sup>151</sup> CARB's supplemental comments at 6. See 49 FR 18887, 18889 (May 3, 1984) and 58 FR 4166 (January 7, 1993). See also *MEMA I* 627 F.2d 1095, 1114-20 (Administrator properly declined to review potential anti-trust and constitutional implications of CARB regulations under 209(b)).

CARB also responds to concerns expressed about the feasibility of ZEV vehicles in terms of consumer demand. They note that current sales data for plug in vehicles show sales growing rapidly – faster than conventional hybrids grew when they were first launched. CARB states that these early sales data, aggressive programs for community readiness, public education, infrastructure development and incentives are in place to support as much as possible consumer acceptance and adoption of ZEV technologies. CARB also notes that the Dealers comments in this regard can be addressed by examining relevant case law and EPA’s past application of the law. CARB notes that the Dealers’ statement that it is inappropriate for EPA to grant a waiver unless the Agency can “demonstrate technological feasibility for all the years in which those standards would be in effect” is disregarding decades of waiver precedent that clearly sets out the appropriate “technological feasibility” analysis under section 202(a).”Section 202(a) has historically been interpreted to allow for projections of likely future technological development. Such projections do not need to ‘possess the inescapable logic of a mathematical deduction.’ Instead, such a projection is considered sufficient if it “answers any theoretical objections to the [projected technology], identifies the major steps necessary in refinement of the technology, and offers plausible reasons for believing that each of those steps can be completed in the time available.”<sup>152</sup>

CARB also addresses the Dealers’ stated concerns about the marketability of ZEVs.<sup>153</sup>

CARB notes that a more appropriate measure of ZEV market success and growth potential is to

---

<sup>152</sup> CARB supplemental comments at 8, citing *NRDC v EPA*, 655 F.2d 318, 331.

<sup>153</sup> CARB notes that it is important to recognize that the ZEV regulations do not place requirements on dealers to offer for sale or sell ZEVs; rather the requirement is on the automakers. Since the obligation to sell and place ZEVs in service falls to the automakers, it is the automakers’ responsibility to make the subject cars marketable and sellable by the dealers.

examine the recent years when ZEVs have actually been available to consumers. In the last two years, with the introduction of Nissan Leaf, Ford Focus EV, Honda Fit EV, Mitsubishi IMiEV, and others, BEV sales have grown 228 percent.<sup>154</sup> As discussed below, CARB also points to the Joint Technical Assessment Report (TAR), which was developed by EPA, NHTSA, and CARB, and released in September 2010.

CARB states that the Dealers disregard well established law and create their own definition of “technological feasibility” in suggesting that EPA consider in its assessment a comparison of ZEVs and conventional vehicles on cost, safety, and performance features such as range and refueling time. CARB relies upon cost (*MEMA I* at 1118), performance (*International Harvester* at 641-647), and durability (*NRDC* at 333-335). CARB states:

The ZEVs produced for the regulation will meet the same safety requirements that conventionally fueled vehicles meet. They already achieve acceleration and power characteristics expected on traditional vehicles and have demonstrated adequate durability. Range and refueling times are characteristics not traditionally taken into consideration. The automakers are targeting range for battery electric vehicles that match up with the vast majority of daily driving needs or most consumers (typical trips and typical daily needs are under 30 miles). For fuel cell vehicles, automakers have demonstrated range capability equal to or greater than conventionally fueled vehicles. With regard to refueling time, BEV drivers look at refueling differently; 30 seconds a day at home to plug in (with charging occurring overnight or while at work) and have a full range daily instead of visiting a gasoline station weekly is characterized as much more convenient. Fuel cell vehicles refuel in about the same amount of time as a gasoline car. By all of these measures ZEVs are more than technologically feasible for commercialization, certainly so with the abundant nine to 12 years

---

<sup>154</sup> CARB supplemental comments at 11, citing Natural Resources Defense Council post (October 31, 2012) attached as item 52 to supplemental comments.

of lead time for the 2022-2025 model years that are the focus of the comments.<sup>155</sup>

CARB also relies upon the projections and explanations submitted with its initial waiver request and notes that the Dealers are taking issue with standards that do not come into effect until after a lengthy lead time. In addition to CARB's waiver request projections and explanations noted at the outset of this section CARB also provides an explanation of the Joint Technical Assessment Report (TAR), which was developed by EPA, NHTSA, and CARB, and released in September 2010. The report concluded "electric drive vehicles including hybrid(s)...battery electric vehicles... plug-in hybrid(s)... and hydrogen fuel cell vehicles ... can dramatically reduce petroleum consumption and GHG emissions compared to conventional technologies .... The future rate of penetration of these technologies into the vehicle fleet is not only related to future GHG and corporate average fuel economy (CAFE) standards, but also to future reductions in HEV/PHEV/EV battery costs, [and] the overall performance and consumer demand for the advance technologies...."<sup>156</sup> CARB notes that the TAR stated that "...[A] number of the firms suggested that in the 2020 timeframe their U.S. sales of HEVs, PHEVs, and EVs combined could be on the order of 15-20 percent of their production."<sup>157</sup>

Lastly, CARB addresses the Manufacturers' comments regarding the cost-effectiveness of CARB ZEV amendments, in terms of cost per ton of CO<sub>2</sub> removal, in a manner similar to its response to the section 177 arguments – that such comments are irrelevant to EPA's 209(b)

---

<sup>155</sup> CARB's supplemental comments at 12.

<sup>156</sup> EPA, 2010. United States Environmental Protection Agency, National Highway Safety and Traffic Administration and California Air Resources Board. September 2010. "Interim Joint Technical Assessment Report: Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards for Model Years 2017-2025" (p. vii).

<http://www.epa.gov/otaq/climate/regulations/ldv-ghg-tar.pdf>

<sup>157</sup> *Id.* at 2-5.

waiver consideration. CARB notes EPA's 2009 GHG waiver decision wherein EPA described the appropriate cost of compliance analysis under section 202(a): "Consistent with *MEMA I*, the Agency has to evaluate costs in the waiver context by looking at the actual cost of compliance in the time provided by the regulation, not the regulation's cost effectiveness. Cost effectiveness is a policy decision of California that is considered and made when California adopts the regulations, and EPA, historically, has deferred to these policy decision....The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent o my decision under section 209."158

In addition to the above facts, we believe additional information can help inform our review of the required increases in the sale of PHEVs, BEVS, and FCVs in California during the 2018 through 2025 timeframe.

EPA reviewed two additional studies of the market potential of ZEVs from the Electric Power Research Institute (EPRI) and the U.S. Energy Information Administration's Annual Energy Outlook (AEO) that are relevant to CARB's ZEV mandate. EPRI, a leading electric utility research organization published a July 2011 technical report, Transportation Electrification, A Technology Overview,<sup>159</sup> which presents three market projection scenarios for EVs and PHEVs. The scenarios project a range of Low, Medium, and High sales volumes. The

---

158 CARB's supplemental comments at 9, citing 74 FR 32744, 32775 (July 8, 2009). CARB provides additional information explaining how the ZEV program was considered in conjunction with the LEV program and that the ZEV regulation remains an important part of California's plans to reach attainment of health based air quality standards.

159 EPRI, Transportation Electrification, A Technology Overview, 2011 Technical Report, EPRI 1021334, July 2011. [Http://www.epri.com/abstracts/pages/productabstract.aspx?ProductID=00000000001021334](http://www.epri.com/abstracts/pages/productabstract.aspx?ProductID=00000000001021334).

EPRI projection for national EV and PHEV sales in 2018 ranges from a low of 500,000 vehicles to a high of 1,920,000 vehicles. In 2025, the EPRI projections range from a low of 1,144,000 to a high of 5,073,000 vehicles. The Low projection mimics the historical market penetration of HEVs from 2000 through 2008, applying their rate of sales growth to PHEVs and EVs. The Medium projection is based on a "ground up" analysis of sales projections derived from PHEV and EV product announcements and production estimates. These projections are extrapolated past 2015 based on the aforementioned product announcements and the past sales performance of HEVs. The High projection is based on the average of the top third (more optimistic) of publicly available sales projections from several sources. In each of EPRI's three cases, projected PHEV and EV national sales far exceed CARB's ZEV mandate. EPA acknowledges that the EPRI study did not specifically project California sales but we believe it reasonable to assume that the supply of and demand for such vehicles will be significantly greater in California (and to some extent in section 177 states with ZEV programs) than it will be in states without a ZEV mandate. The EPRI study indicates that it would take less than 25 percent of the total national sales of ZEV in the Low scenario in order to exceed the necessary ZEV sales percentages during the 2018 through 2025 timeframe in California.

The U.S. Energy Information Administration (EIA) also analyzed two scenarios of market penetration for PHEVs and EVs in their Annual Energy Outlook 2012 (AEO2012).<sup>160</sup> AEO's reference case indicates a national market potential of around 165,000 EVs and PHEVs in 2018 which is more than twice the CARB ZEV requirement. In 2025, the AEO reference case

---

<sup>160</sup> U.S. Energy Information Administration, Annual Energy Outlook 2012, Data Tables, Table 57 accessed 12/13/12 at <http://www.eia.gov/oiaf/aeo/tablebrowser/#release=AEO2012&subject=0-AEO2012&table=48-AEO2012&region=1-0&cases=hp2012-d022112a>.

indicates a national market potential of 283,000 ZEVs, which still exceeds CARB's proposed ZEV requirement of nearly 271,000. AEO's reference case assumes EV technology cost, especially batteries, remains high through 2030. AEO's High Technology Battery case, assumes the Department of Energy's (DOE) battery cost goals are met in 2015. Generally, these battery costs are more comparable to battery costs used by CARB and EPA in the 2010 Joint Technical Assessment Report (TAR)<sup>161</sup> than those used in the reference case. The AEO High Technology Battery case indicates a market potential of ZEVs in 2018 as 805,000 units, increasing to 1,394,000 in 2025. As with the EPRI study above, using the projections of the AEO High Technology Battery case, it would take less than 25 percent of the total national sales of ZEV to exceed the necessary ZEV sales percentages during the 2018 through 2025 timeframe in California.

While both the EPRI and AEO market projections are for national sales, EPA believes it is reasonable to assume that a significant percentage of these vehicles will be sold in California as has been the past practice with HEVs and EVs.

b. EPA's Response to Comments

After a review of the information in this proceeding, EPA has determined that the opponents of the ZEV standards have not demonstrated that the necessary increase in PHEV and ZEV sales necessary to meet the ZEV standards in the 2018 through 2025 MYs is infeasible. A review of the record, indicates that compliance with the ZEV standards, as they affect the 2018 through 2025 MYs, is feasible giving consideration to cost and lead time available. CARB has

---

<sup>161</sup> "Interim Joint Technical Assessment Report: Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards for Model Years 2017-2025," September 2010.

answered any theoretical objections to the projected technology, identified the major steps necessary in refinement of the technology, and offers plausible reasons for believing that each of those steps can be completed in the time available. This assessment is based upon the current technology available along with projected improvements in technology and expected cost reductions (in addition to continuing increases in consumer demand in response to preferences for advance technologies, fuel savings, available and improved infrastructure, incentives, regulatory mandates, etc) and given the significant lead time provided. As discussed in detail below, EPA cannot find that those opposing the waiver request have met their burden of showing that California's regulations are inconsistent with section 202(a). Therefore, we cannot deny the waiver on that ground.

#### *Basic Feasibility of ZEV Technology*

At the outset we note that manufacturers are meeting the ZEV requirements today. As CARB noted in its waiver request, most manufacturers have near-term production plans to meet or over comply with regulatory requirements through 2017. More importantly, a number of manufacturers have clearly demonstrated the feasibility of ZEV technology with in-production or planned PHEV, BEV and FCV models within the next few years. Manufacturers are also afforded the flexibility to determine the appropriate mix between BEVs and FCVs. We note that no commenter suggested that the underlying technology is not available today nor is there any evidence in the record that contradicts CARB's assertions that improvements and technology path moving forward will continue in the ZEV area in regards to range and other capabilities. The objections raised by those opposing the waiver on this point have to do less with the basic



feasibility of ZEVs than with their acceptability/marketability, supporting infrastructure, and cost.

Regarding the lead time provided by California to meet the ZEV phase-in requirements, the commenters have not met their burden to show that the lead time is insufficient. While the commenters noted general concerns about marketability, infrastructure and cost they made no claims that inadequate lead time exists or that CARB's requirements would be feasible if more lead time were provided.

Regarding the cost component of the technological feasibility test, EPA believes that the opponents of the waiver have not met their burden to show that the ZEV standards are not technologically feasible because of excessive cost. As noted above, EPA has traditionally examined whether the necessary technology exists today, and if not, what is the cost of developing and implementing such technology. To the extent it is appropriate for EPA to continue to examine the cost of implementing ZEV technology, CARB estimates that by 2025 the incremental cost of a ZEV or TZEV is expected to rapidly decline, yet remain approximately \$10,000 (high end estimate) higher than a conventional vehicle.<sup>162</sup> The Manufacturers note that CARB's analysis provides an incremental cost of \$12,900 in MY 2020.<sup>163</sup> Under EPA's traditional analysis of cost in the waiver context, because such cost does not represent a "doubling or tripling" of the vehicle cost, such cost is not excessive nor does it represent an infeasible standard.<sup>164</sup> Moreover, though EPA believes that it is not necessary or appropriate for EPA to evaluate how manufacturers choose to allocate the incremental costs of ZEVs over their

---

<sup>162</sup> CARB waiver request at 6.

<sup>163</sup> Manufacturers' comments at 16.

<sup>164</sup> *MEMA I* at 1118.

respective California fleets. CARB has identified one methodology of speeding the cost over the entire fleet with a resulting incremental cost of approximately \$500, which is well within acceptable cost levels. EPA notes that manufacturers and dealers have many possible strategies available to spread the cost of the ZEV requirement beyond ZEV purchasers, but that such strategies are within the market choices of the manufacturers and dealers. Although EPA received comment that a manufacturer may have to employ costly marketing strategies if consumers do not otherwise accept ZEV vehicles, we do not believe such statements evidence standards that are infeasible. EPA also notes the likely existence of additional incentive programs that will further enable the marketability of ZEV vehicles from a cost perspective.

*Relevance of Section 177 States on Consistency Analysis*

The opponents of CARB's ZEV amendments, as they affect 2018 and later MYs, rely upon the implications of the adoption of CARB's ZEV amendments in section 177 states and resulting feasibility concerns. EPA's longstanding interpretation of section 209(b) and its relationship with section 177, is that it is not appropriate under section 209(b)(1)(C) to review California regulations, submitted by CARB, through the prism of adopted or potentially adopted regulations by section 177 states. EPA believes the language of section 209(b) is intended to apply solely to whether California's regulations can be denied a waiver under the criteria of section 209(b). State regulations promulgated under section 177, which are promulgated by separate state agencies under their own authority, and which have not been submitted to EPA for waiver review, are not a proper focus of review for our determination regarding whether California's state regulations meet the requirements under section 209(b). Section 177, and the

state statutes authorizing state action under section 177, is separate provisions with their own requirements, and those opposed to state regulations promulgated under section 177 would need to take action under those provisions in those states.

An issue that arose during EPA's consideration of California's waiver request for its 1990 LEV standards was whether EPA could consider in its waiver decision the impact and implications of other states adopting the California standards under section 177. EPA concluded that section 209(b) does not authorize the agency to consider the impacts of actions or potential actions taken by other states under section 177 in reviewing a waiver request by California for its state standards.<sup>165</sup> EPA also received comment, during a 1978 waiver review that EPA must consider each of the criteria of section 209(b) of the Act in light of the possibility that eligible States may impose the emission control requirements, for which a waiver has been granted, under section 177. A commenter further argued that EPA could not grant a waiver unless and until we could make an affirmative finding that the basic market demand could be satisfied in all States eligible to adopt and enforce the California standards under section 177. We did not agree with the commenters' interpretation of EPA's responsibilities under section 209(b). "That section authorizes me to deny California a waiver only if I have determined that California does not meet the given criteria; it does not require me in granting a waiver to consider the impacts of actions taken by other States under section 177..." EPA continued "The legislative history

---

165 58 FR 4166 (January 13, 1993), and LEV Decision Document at pp. 185-186. See "State and Federal Standards of Mobile Source Emissions: published by the National Research Council, 2006 at 81, 83. "In contrast to section 209(b) in which Congress explicitly assigned EPA the role of approving waiver of federal preemption for California standards, in section 177, Congress did not assign EPA any role in approving adoption of California by other states. As EPA itself stated, 'language requiring that other States request and receive authorization from EPA is noticeable absent.'"

behind the Clean Air Act Amendments of 1977 [the amendments that added section 177] contains no statement to the contrary.”<sup>166</sup> More significantly, the legislative history behind the amendments to section 209(b) specifically states that the intent of these amendments was \*\*\* “to ratify and strengthen the California waiver provision and to affirm the underlying intent of that provision, i.e. to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare.”<sup>167</sup> EPA also determined that Congress already had balanced the burdens on manufacturers by selecting the language they did for section 177 and believed that such authority should not place an undue burden on the vehicle manufacturers. EPA is also guided by the District of Columbia Circuit’s discussion of section 177 and section 209: “Rather than being faced with 51 different standards, as they had feared, or with only one as they had sought, manufacturers must cope with two regulatory standards under the legislative compromise embodied in section 209(a).”<sup>168</sup>

EPA also believes it important to clarify that the record and the comments do not indicate that the CARB Board based its technological feasibility analysis, in order to determine the ability of manufacturers to meet CARB’s standards within California, on the existence of any travel provisions or other regulatory provisions which may allow a manufacturer to take credit for certain ZEV sales outside of California.

#### *Manufacturer Contentions Regarding Cost-Effectiveness*

---

166 See H.R. Rep. No. 95-294, 95<sup>th</sup> Cong. 1st Sess. 14, 23, 26, 207-217, 301-302, 209-311 (1977); H.R. Rep. No. 95-564, 95<sup>th</sup> Cong., 1<sup>st</sup> Sess. 156, 158, 170 (1977).

167 43 FR 1829 (January 12, 1978), citing H.R. Rep. No. 95-294, 95<sup>th</sup> Cong., 1<sup>st</sup> Sess. 301-302 (1977)

168 *Engine Manufacturers Association v EPA*, 88 F3d 1075, 1080 (D.C. Cir. 1996).

With regard to the Manufacturers' contention that CARB's ZEV regulation is not cost-effective in terms of the cost per ton of removing CO<sub>2</sub>, EPA agrees with California's argument that case law clearly precludes EPA's consideration of this issue within the waiver context. Consistent with the court in *MEMA I*, the Agency has previously evaluated costs in the waiver context by looking at the actual cost of compliance in the lead time provided by the regulation, not the regulation's cost effectiveness.<sup>169</sup> As noted previously, EPA has clearly stated that "The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209...."<sup>170</sup> EPA has consistently afforded deference to CARB's policy judgments and has recognized that "The structure and history of the California waiver provision clearly indicate both a Congressional intent and an EPA practice of leaving the decision on ambiguous and controversial matters of public policy to California's judgment."<sup>171</sup> To the extent the Manufacturers are raising general concerns regarding the cost associated with the ZEV technology and meeting applicable ZEV requirements, EPA has addressed this above.

#### *Consumer Demand*

With respect to the consumer demand issues raised, we note that the record, based on comment from the Manufacturers and the Dealers, is insufficient to meet the burden of proof to counter the current and projected consumer demand evidence supplied by CARB and the other

---

<sup>169</sup> 36 FR 17158 (August 31, 1971). *See also* 74 FR 3232744, 32775 (July 8, 2009).

<sup>170</sup> *Id.*

<sup>171</sup> 40 FR 23102, 23104 (May 18, 1975). *See also* Decision Document accompanying waiver determination in 58 FR 4166 (January 13, 1993).

commenters supporting the waiver. EPA did not receive any evidence or data from commenters to refute the projections made by CARB or other commenters. Although the Dealers maintain that CARB's point that BEV and even FCVs are being marketed today is not sufficient to demonstrate the demand for hundreds of thousands of ZEVs that will be required to be produced by 2025, the Dealers only turn to the history of the ZEV program. We believe such history is instructive. However, it does not meet the burden of proof required to demonstrate that the ZEV requirements are technologically infeasible looking forward, given the substantial amount of lead time before the standards take effect and the steps that manufacturers and dealers can take to facilitate compliance with these standards (e.g. rebates and other incentives). In addition, we note that PHEV and ZEV costs are projected to decrease as demand increases and regulatory floors are established. EPA believes CARB easily meets the historical test of whether their emission standards result in "doubling or tripling" of costs as applied in *MEMA I* noted above. EPA has heard directly from consumer groups that express confidence that demand for advance technology vehicles exists today and continues to grow. In addition to this evidence, EPA also believes that the analyses of future ZEV market potential, noted above, provide additional evidence that CARB's projections are supportable. Moreover, while marketability is an important issue for Manufacturers and Dealers, it is questionable how relevant it is to basic technological feasibility. As discussed above, there is no real question about the basic feasibility of this technology, and that the cost of each vehicle, if carried across a Manufacturer's entire sales line, is not as high as to implicate basic feasibility. That matter of how Manufacturers and Dealers choose to market these vehicles is one of market choice, as Manufacturers and Dealers

attempt to maximize sales at the expense of other Manufacturers and Dealers. That the industry as a whole will experience increased costs, and that such increased costs will create marketability issues, is clear. But these are not so significant to implicate the technological feasibility of the vehicles for purposes of a waiver determination.

### *Infrastructure*

The Manufacturers' recommendation that EPA deny a waiver for the 2018 and later ZEV amendments is based largely on an argument surrounding lack of market demand (discussed above) and infrastructure in the section 177 states. The comments state, "...while California's infrastructure and consumer market may be developing to the point where at some time in the future the introduction of the number of ZEVs required under the California regulations may be feasible in that State, the same is not true of all the Section 177 States that have adopted ZEV."<sup>172</sup>

However, as explained above, EPA has determined in previous waiver actions that section 209(b) does not authorize the Agency to consider the impacts of actions or potential actions taken by other states under section 177 in reviewing a waiver request. CARB provided considerable evidence of state and federal efforts and programs underway to ensure that the infrastructure needed for the ZEV program in California is available. The Manufacturers and Dealers do not take issue specifically with CARB's assertions regarding the infrastructure that has been, and will be, put in place to meet these requirements in California. Therefore, based on the record before me those opposing the waiver on this basis have not met their burden of proof.

### *Dealers' List of Feasibility Criteria*

---

<sup>172</sup> Manufacturers comment at 13.

Lastly, EPA responds to the laundry list of requirements that the Dealers maintain is required in order for ZEVs to be marketable and thus for the ZEV regulations to be technologically feasible. The Dealers fail to provide any evidence to support their assertions nor do they refute the legal arguments and evidence otherwise in the record. For example, the Dealers fail to provide any evidence that ZEV vehicles are not as safe as the conventionally-fueled (conventional) vehicles of the same size. EPA agrees with CARB's statements that ZEV vehicles will meet the same safety requirements that conventional vehicles must meet. In any case, while EPA takes safety into consideration when examining the feasibility of emission standards, this basic feasibility does not require an examination of the relative safety of each vehicle.

With regard to performance – many ZEVs already achieve acceleration and power characteristics expected on conventional vehicles. In addition, the Dealers provide no evidence that ZEVs lack performance characteristics that are essential for basic feasibility of the vehicle. ZEVs on the market today span a wide range of performance capability. The Mitsubishi iMiEV is a small four seat electric city car.<sup>173</sup> Nissan's Leaf offers 5 seats and a size comparable to a Nissan Versa.<sup>174</sup> Tesla's Model S is a larger sedan with luxury and performance comparable to other luxury sedans. Tesla's Roadster is a high performance two-seater EV.<sup>175</sup> Finally, Toyota's RAV4 EV is an electric version of their popular RAV4 SUV.<sup>176</sup> All these vehicles are designed to compete favorably on a performance basis with conventional cars in the same class.

---

<sup>173</sup> <http://www.mitsubishicars.com/MMNA/jsp/imiev/12/trim.do>

<sup>174</sup> <http://www.nissanusa.com/leaf-electric-car/key-features>

<sup>175</sup> <http://www.teslamotors.com/goelectric#>

<sup>176</sup> <http://www.toyota.com/rav4ev/specs.html>



EPA has not historically taken into consideration the range and refueling times. Moreover, NADA does not present any evidence or data to suggest necessary ranges and refueling times deemed essential by consumers. Nor do the Dealers provide evidence that BEVs are not now, and cannot be in the lead time permitted, be manufactured in a manner to be above these necessary ranges and times. Evidence in the record suggests that many consumers average drive trips and refueling expectations are well within the capacity of current ZEV technology. EPRI analyzed a “National Household Travel Survey” that found: about 95% of daily driving is under 90 total miles; about 80% of daily driving is under 40 total miles; about 65% of daily driving is under 20 miles; and, there seems to be little variation in daily driving habits between many factors such as weekday/weekend, seasons, rural/urban, income, etc.<sup>177</sup>

EPA also notes that additional lead time is abundant, from nine to twelve years for the 2022-2025 timeframe for further developments to technology that can reasonably be expected.

#### c. Conclusion on Technological Feasibility

After its review of the information in this proceeding, EPA has determined that the industry opponents have not met the burden of producing the evidence necessary for EPA to find that California’s LEV III/GHG standards and ZEV emission standards (as finalized on December 6, 2012) are not consistent with Section 202(a).

#### 5. Consistency of Certification Test Procedures

CARB notes that the test procedures for certifying ZEVs, AT PZEVs, and PZEVs are contained in the ZEV and LEV Standards and Test Procedures incorporated by reference in

---

<sup>177</sup> EPRI: Transportation Statistics Analysis for Electric Transportation, Technical Update EPRI #1021848, Dec 2011.

section 1962.1(h) and 1962.2(h) and are largely un-amended by the 2012 ZEV rulemaking. The federal Tier 2 regulations require manufacturers to measure emissions from ZEVs in accordance with the California test procedures. Accordingly there are no inconsistencies between the federal and California test procedures that would preclude a manufacturer from conducting one set of tests to demonstrate compliance with federal and California certification requirements. EPA has received no adverse comment or evidence of test procedure inconsistency and therefore we cannot deny the waiver on this basis.

#### 6. Relevance of the Energy Policy and Conservation Act (EPCA) to the Waiver Decision

EPA received comment from the Dealers that CARB's waiver request for its GHG emission standards should be denied because CARB's standards are in direct conflict with EPCA. The Dealers note "EPCA expressly preempts state GHG emission standards because such laws relate to fuel economy standards."<sup>178</sup>

As EPA has stated on numerous occasions, section 209(b) of the Clean Air Act limits our authority to deny California's requests for waivers to the three criteria therein, and EPA has refrained from denying California's requests for waivers based on any other criteria. Where the Court of Appeals for the District of Columbia Circuit has reviewed EPA decisions declining to deny waiver requests based on criteria not found in section 209(b), the court has upheld and agreed with EPA's determination.<sup>179</sup>

Evaluation of whether California's GHG standards are preempted, either explicitly or implicitly, under EPCA, is not among the criteria listed under section 209(b). EPA may only

---

<sup>178</sup> Dealers at 10.

<sup>179</sup> See *Motor and Equipment Manufacturers Ass'n v. Nichols*, 142 F.3d 449, 462-63, 466-67 (D.C. Cir. 1998), *MEMA I* at 1111, 1114-20.

deny waiver requests based on the criteria in section 209(b), and inconsistency with EPCA is not one of those criteria. In considering California's request for a waiver, I therefore have not considered whether California's standards are preempted under EPCA. As in previous waiver decisions, the decision on whether to grant the waiver is based solely on the criteria in section 209(b) of the Clean Air Act and this decision does not attempt to interpret or apply EPCA or any other statutory provision.

## **VI. Decision**

The Administrator has delegated the authority to grant California section 209(b) waivers of preemption to the Assistant Administrator for Air and Radiation. After review of the information submitted by CARB and other parties to this Docket, I find that those opposing the waiver request have not met the burden of demonstrating that California's regulations do not satisfy one or more of the three statutory criteria of section 209(b). For this reason, I am granting California's waiver request to enforce its ACC emission regulations, including the "deemed to comply" rule for GHG emissions. EPA also determines that CARB's amendments to the ZEV program as they affect 2017 and prior MYs are within the scope of previous waivers of preemption granted to California for its ZEV regulations. In the alternative, EPA's waiver of preemption for CARB's ACC regulations includes a waiver of preemption for CARB's ZEV amendments as they affect all MYs, including 2017 and prior MYs.

My decision will affect not only persons in California but also persons outside the State who would need to comply with California's GHG emission regulations. For this reason, I hereby determine and find that this is a final action of national applicability.

Under section 307(b)(1) of the Act, judicial review of this final action may be sought only in the United States Court of Appeals for the District of Columbia Circuit. Petitions for review must be filed by [INSERT DATE SIXTY DAYS AFTER FR PUBLICATION DATE OF THIS NOTICE]. Under section 307(b)(2) of the Act, judicial review of this final action may not be obtained in subsequent enforcement proceedings.

## **VII. Statutory and Executive Order Reviews**

As with past waiver decisions, this action is not a rule as defined by Executive Order 12866. Therefore, it is exempt from review by the Office of Management and Budget as required for rules and regulations by Executive Order 12866.

In addition, this action is not a rule as defined in the Regulatory Flexibility Act, 5 U.S.C. § 601(2). Therefore, EPA has not prepared a supporting regulatory flexibility analysis addressing the impact of this action on small business entities.

Further, the Congressional Review Act, 5 U.S.C. § 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, does not apply because this action is not a rule, for purposes of 5 U.S.C. § 804(3).

Dated: December 27, 2012.

Gina McCarthy,  
Assistant Administrator,  
Office of Air and Radiation

8:45 am; Publication Date: 01/09/2013]

[FR Doc. 2013-00181 Filed 01/08/2013 at